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WHAT IMPACT DOES NONVERBAL BEHAVIOUR HAVE ON MALE PERCEPTIONS OF SEXUAL CONSENT?

by

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Abstract

Nonconsent is often a definitive feature of sexual assault within law and society. Studies have found that men and women commonly share an understanding of how to define explicit (verbal) consent and nonconsent (Beres et al., 2006; Beres et al., 2008; Humphreys, 2004). However, sexual communication research has highlighted differences in how men and women conceptualise, interpret, and communicate nonverbal behaviours as consensual. This topic remains largely under-researched (Jozkowski et al., 2014) and therefore, better understanding is required to support psychoeducational programmes teaching individuals about consent communication, with a particular emphasis on the complexities of nonverbal behaviour during sexual interactions. This thesis explores how nonverbal behaviours are interpreted by heterosexual partners during sexual encounters.

Chapter one introduces the wider literature around sexual communication, specifically focusing on Tannen's (1992) miscommunication theory, which states that men and women communicate differently, stemming from developmental experiences. Consequently, their differences can impact understanding of communicative behaviour during sexual interactions.

Chapter two presents a systematic literature review of current research that has measured how participants interpret specific nonverbal behaviours during sexual interactions. Nine quantitative studies were included within the review. The review found gender differences in how men and women communicate and perceive nonverbal behaviour, with men commonly over-predicting that nonverbal behaviour was indicative of sexual interest and consent from a partner.

Chapter three presents an empirical study that examined how American men (N=888) interpreted Kowalski's (1992) low and medium levels of nonverbal behaviours during a

heterosexual interaction. Perceptions of consent were examined in relation to hypermasculinity to test whether higher levels of conformity to masculine norms were related with consent perceptions. The study found that men with higher levels of conformity to masculine norms were more likely to perceive that the couple would engage in sexual intercourse in both the low and medium conditions of nonverbal behaviour.

Chapter four examines the psychometric properties of Parent and Modari's (2009) Conformity to Masculine Norms Inventory– 46 (CMNI-46), which was developed based on Mahalik et al. (2003) Conformity to Masculine Norms Inventory (CMNI). The CMNI-46 is the shorter, revised version, of Mahalik et al.'s (2003) CMNI, and measures men's propensity to conform to masculine norms derived in American society. The CMNI-46 relies heavily upon the original data collected during Mahalik et al.'s (2003) conceptualisation of the CMNI tool and would benefit from more research specifically on the recent version.

Chapter five draws together the main findings of the thesis and reflects on the contribution to our understanding of how nonverbal behaviours are at risk of being misperceived by hypermasculine men. Recommendations are made regarding further research that would benefit the growing literature base on understanding how decisions about sexual consent are signified, interpreted, and acted upon.

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TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

CHAPTER ONE

INTRODUCTION

Introduction

Sexual assault, rape, and sexual battery continue to lack universally accepted definitions (Muehlenhard et al., 2016). However, it is generally accepted that these terms refer to sexual acts that have been obtained through either threat of force or violence and without the victim's agreement (i.e., consent). These offences can impact both men and women, however, statistics produced by the World Health Organisation (WHO) estimated that approximately 30% of women worldwide have been impacted by violence and/or sexual violence perpetrated by an intimate partner or non-partner (WHO, 2021). Comparatively, Basile et al. (2011) found that one in seventy-five men reported experiencing sexual assault in America compared to one in five women. However, statistics and research into male sexual assault continue to be murky due to low reporting numbers and smaller sample sizes compared to research including women (Wright et al., 2018). This thesis will predominantly include research that has focused on sexual violence perpetrated by men towards women, however, acknowledges that sexual violence is pervasive despite gender.

In America, the legal definitions for sexual assault, sexual battery, and rape can vary across different jurisdictions (Eileraas, 2011; Palmer, 2011). Muehlenhard et al. (2016) completed a review of consent literature focusing on American university (college) student samples and found that rape is typically defined as non-consensual vaginal penetration, although in some jurisdictions this includes oral and anal penetration. Sexual battery includes non-consensual sexual touching, and sexual assault comprises of non-consensual penetration. Within academia, definitions are found to vary across studies depending on the purpose, function and country of the research (Muehlenhard et al., 1992). Within this thesis, the term

sexual assault will be used to refer to non-consensual penetration (e.g., vaginal, oral, and anal) and/or sexual touching.

Similar difficulties have arisen within academia when defining consent. It has been suggested that consent is an internal state that is not observable; consent is an explicit agreement; and consent is a behaviour that another person perceives as willingness (Muehlenhard et al., 2016). Legally, there is a collective consensus for defining sexual consent in Western Countries, however, this varies across jurisdictions in the US. It is commonly defined as a voluntary agreement by a person above a certain age (this varies across countries), who has the mental capacity[1] to understand what they are agreeing to and is not under any duress or coercion (Basile et al., 2011). Although the conceptualisation of consent varies within academia, this often relates to how consent is communicated, perceived and acted upon by others. Therefore, this thesis will rely upon the legal definition for consent used within the United Kingdom, which states a person demonstrates consent if they agree by choice and have the capacity and freedom to make that choice (Sexual Offences Act, 2003). This is similar to the definition of Affirmative Consent defined within Californian Law (Californian Senate Bill, SB-967, 2014) and reflects the similarities in conceptualisation of consent across Western counties.

Sexual assault is prevalent across the world, particularly for women as victims. The World Health Organisation (WHO, 2013) estimates that one in three women globally have experienced either sexual and/or physical violence from an intimate partner or non-intimate partner within their lifetime. In America, the National Intimate Partner and Sexual Violence

[1] In the United Kingdom, Section 2 of the Mental Capacity Act (2005) states "a person lacks capacity in relation to a matter if at the material time he is unable to make a decision for himself in relation to the matter because of an impairment of, or a disturbance in the functioning of, the mind or brain." Section 27 of the Mental Health Act includes consenting to sexual relations as a matter requiring mental capacity.

Survey found that twenty percent of women have experienced rape (either completed or attempted) during their lifetime (Smith et al., 2018). Women between the ages of 12-24 have been found to be at the highest risk of rape and sexual assault in America (Department of Justice, 2015). Research into American college students found that approximately one in five female students have experienced attempted or completed sexual assault in America and Canada (Fisher et al., 2000; Muehlenhard et al., 2015). Nonetheless, sexual assault continues to be the most under-reported crime in America (Langtin et al., 2012; Longsway & Archambault, 2012). One suggestion for this, is that victims fear that they will not be believed by authorities. In 2018, just eighteen percent of sexual assaults reported to American law enforcement resulted in an arrest (Federal Bureau of Investigation, 2019). Similarly, Lonsway and Archambault (2012) found that between three and twenty-six percent of reported sexual assault cases resulted in a conviction. Investigations into under-reporting have found that individuals lack confidence in the Criminal Justice System (Taylor & Gassner, 2009), fear they will be disbelieved, and question whether the event was non-consensual (Heath et al., 2011).

Date-Rape Prevention Programmes

In order to address the persistence of sexual assault, psychoeducation programmes have been developed within American universities, with the aim of targeting young people to teach them skills to prevent becoming victims. Scheinberger-Olwig and Kolpin (2000), and Weitz (2002) propose that assertiveness training should be included in date-rape prevention programmes; teaching women to say “no” more clearly in order to reduce miscommunication that could lead to sexual assault. This stance appears to have become a popular theme within programmes of this nature, with Rowe et al. (2012) finding that women who had completed a Dating Assertiveness Training Experience programme were less likely to be victimised

compared to women who had not. Similarly, Breklin and Ullman (2005) found that participants reported increased self-confidence following self-defence and assertiveness training. They also found that women who have taken part in these forms of intervention are more likely to display rape-avoidance techniques such as running way, screaming for help, or physically struggling (Perri, 1991; Ullman, 1997).

American university campuses offered courses of a similar nature in order to reduce campus sexual assault. Lidsker (1991) argued that female university students who had engaged in programmes of this nature were less likely to blame themselves for assaults committed against them compared to women who had not. However, Beres (2010) suggests that perhaps the problem is not how women are communicating, but instead how some men interpret situations based upon their beliefs. Beres (2010) argued that too much emphasis was being placed on the women's behaviour rather than the mans, and that this consequently contributes to victim blaming attitudes with regard to sexual offences (Rusinko et al., 2010).

The notion that men may interpret situations differently compared to women, and the apparent bias of interventions targeted towards women, prompted researchers to focus on men and women's perceptions of communication (verbal and nonverbal) used during sexual negotiations. It has been found that there are similarities and differences in how men and women communicate verbally and nonverbally (Hickman & Muehlenhard, 1998; Jozkowski et al., 2014; Newstorm et al., 2020). Some studies which found differences in how men and women interpret communication cues from the opposite gender suggested miscommunication could occur during sexual negotiations, which may lead to sexual assault (Burkett & Hamilton, 2012; O'Bryne et al., 2008).

Communicating Consent

There has been a wealth of research analysing how men and women communicate their sexual interest and ultimately their consent intentions. Much of the research shows that men and women share a similar understanding of direct verbal communication, for example, clear verbal indications of sexual willingness by someone saying "yes" or "no" (Osman, 2003; O'Bryne et al., 2006, 2008). Gender differences have been found in how men perceive women's sexual interest, with men overestimating interest in them (Abbey, 1982; Farris et al., 2008; Henningsen et al., 2006; Maner et al., 2005).

Although some research has suggested that men and women have a mutual understanding of direct verbal communication indicating sexual consent, discrepancies have been found when focusing on men and women's perceptions of nonverbal behaviour. Studies have found that men and women can perceive specific nonverbal behaviour differently (Abbey, 1982; Osman, 2003). Differing interpretations of a woman's lack of resistance during sexual encounters have been highlighted. Osman's (2003) male sample considered that if a woman does not physically resist or show verbal expressions of non-consent then this is indicative that she wishes to continue with sexual activity. Byers and Lewis (1988) argued that a lack of resistance could demonstrate fear and powerlessness (Murnen et al., 1989) as a woman may feel that resistance could result in further sexual violence. This fear could also ignite automatic stress responses, such as fight, flight and freeze, that may impact how a woman responds during a potentially threatening situation. Significant differences such as this could offer possible explanations about why rape may prevail in some situations, and stresses the need for a better understanding of how consent is communicated, perceived, and acted upon.

In relation to investigating consent communication in sexual encounters, previous research has incorporated a variety of methodological designs to collect data (e.g., interviews,

vignettes, questionnaires, and visual stimuli). Many of these methodological designs will have impacted participants arousal levels due to the visual or written stimuli they were presented with. A limitation of such research is the lack of measurement of arousal and the impact that this may have had on decision making. Yerkes-Dodson Law (Yerkes & Dodson, 1908) introduces the notion that increased levels of arousal can improve performance. Arousal is described by Schachers (1959; 1966; 1971) as a psychological response that is defined by an emotional label, based upon the strength of the arousal sensation. Considering this in relation to consent studies, it could be inferred that some researchers may provoke strong emotional responses from participants when presenting information relating to sexual encounters. Therefore, it should be considered that decisions made within consent studies are likely to be driven by increased levels of arousal. There has been much research examining the manipulation of arousal within psychological studies, including Cotton's (1981) misattribution theory, which proposes that misattribution of arousal can only be accomplished when an individual is subject to unusual or novel experiences. These concepts will be discussed in further detail in chapter 3 in relation to visual stimuli research designs and consent studies.

Learning about Consent

It is suggested that how people acquire and display behaviour can be explained by social cognitive theory which states that people learn through observation and imitation of behaviour that has been modelled to them by others (Bandura, 2001). Huesmann (1986) reports that the media plays a substantial role in how people acquire societal norms and support for this has been found in recent research studying adolescents, social media exposure, and problematic beliefs and behaviours (Nesi et al., 2018). In the absence of accurate or desired information from sex education programmes, teenagers and young adults

have developed their normative sexual behaviours through media use (Brown et al., 2002, 2005). Sexual scripts[2] are often displayed through these media sources, including television, music, and social media, and represent and reinforce societal norms relating to sexual pursuit. They are reported to be mutually shared conventions held at a societal and individual level, and shape a person's beliefs and values about sexual scenarios. Sexual scripts have been widely researched and are often associated with other theories of sexual behaviour, beliefs and actions, such as those proposed in the rape myth[3] and token resistance[4] literature (Emmers-Sommer, 2016; Hust et al., 2016; Ryan, 2011).

Willis et al. (2020) conducted a study to ascertain how sexual consent was communicated in best-selling pornographic films from 2015. Within these films they found that nonverbal consent was displayed more frequently than verbal consent, with evidence of sexual scripts being demonstrated within the interactions. These scripts were:

> *"*Explicit verbal consent isn't natural; women are indirect/men are direct; sex can happen without ongoing communication; lower-order behaviours don't need explicit consent; and people receiving sexual behaviours can consent by doing nothing" (Willis et al., 2020, p.59).

These findings were similar to scripts captured in the Willis et al. (2019) study in relation to consent depicted in PG thirteen films, where the theme "sex just happens" (p.1987) was found. It was reported in both studies, that the movie clip often started or cut to a scene of

[2] Scripts are internal beliefs about how events typically proceed (Schank & Abelson, 1977). Sexual Scripts include anticipated patterns of behaviour during sexual conquests, including male persistence and methods of consent (Frith, 2009).

[3] "…prejudicial, stereotyped, or false beliefs about rape, rape victims and rapists" (Burt, 1980, p. 27)

[4] "Token resistance involves indicating reluctance to engage in an initiated sexual activity despite intentions and willingness to engage in the activity" (O'Sullivan & Allgeirer, 1994, p. 1036).

penetrative intercourse, failing to show potential proceeding events where consent could have been expressed. This reinforces that the sexual script of sexual interactions can take place in the absence of ongoing communication and consent seeking. It could be argued that scenarios such as these can provide misinformation to audiences who either consciously or unconsciously use media platforms to acquire societal norms and expectations of sexual behaviour. Furthermore, if a person adopts attitudes and behaviours that do not reflect positive ways to ensure consent has been communicated, they may believe that others are behaving in a similar way to them. Ross et al. (1977) coined this assumption the false-consensus bias, whereby an individual believes that others hold the same attitudes, values, and behaviours as themselves. This is explored in further detail in chapter 3.

Miscommunication Theory

One theory which attempts to offer an explanation as to why sexual violence occurs is the miscommunication theory (Tannen, 1992). This theory states that men and women learn different communication styles based upon the societal norms placed upon them, which influences their experiences and consequently their communication techniques. It further posits that gender differences in beliefs that men and women hold can be explained through the societal expectations placed upon them. An example of this can be seen in the rape myth literature, that has found that rape myth acceptance often derives from the societal norms in which someone lives, and are often misrepresentations of sexual violence (Lonsway & Fitzgeralk, 1994). Although rape myths can vary between cultures, common themes have been found, including; blaming victims for their rape, disbelieving reports of rape, absolving the perpetrator, and suggesting that only specific types of women are raped (Bohner et al., 1998; Burt, 1980; Costin, 1985; Gerger et al., 2007; Grubb & Turner, 2012; Lonsway & Fitzgerald, 1994; Lonsway & Fitzgerald, 1995). Generally, men are more likely to endorse

rape myths compared to women (Ashton, 1982; Blumber & Lester, 1991; Field, 1978; Jenkins & Dambrot, 1987; Reilly et al., 1992; Ward, 1988). However, women with higher levels of religiosity are more likely to hold rape myth beliefs compared with non-religious women (Barnett et al., 2016). This finding highlights just one influence that belonging to specific societal groups, such as religions, can have when shaping and reinforcing beliefs about societal norms and behaviour.

Token resistance is another social norm which refers to a man's perception that a woman needs to demonstrate resistance despite her actual interest in engaging in sexual intercourse. Muehlehard and Hollabaugh (1988) state that men do not interpret a woman's resistance as indicative of her not wanting to have sexual intercourse. Instead, it is believed that she does but is saying no when she really means yes. Hypermasculinity, a term coined by Mosher and Sirkin (1984), conceptualises behaviour displayed by men who seek to assert physical and sexual dominance and power in interactions with others. Hypermasculine men have been found to adhere more strongly to rape myth acceptance and token resistance beliefs compared to counterpart low-masculine men, with studies using masculinity measurement tools (Osman, 2003; Sullivan & Mosher, 1990).

The miscommunication theory suggests the adherence to societal norms can influence how a person behaves and how they interpret behaviour from others (Tannen, 1992). This could explain why studies have highlighted differences in how men and women negotiate sexual activity and ultimately perceive consent. The majority of the differences have been found when analysing the use of nonverbal communication and this remains a growing area of research within consent literature. Therefore, further exploration of the miscommunication theory in relation to nonverbal communication and perceptions of sexual consent is paramount, as current research shows that nonverbal behaviours continue to be a commonly

used method for determining consent from a partner (Jozkowski et al., 2014; Muehlenhard et al., 2016; Willis et al., 2019). Additionally, individual differences, such as adherence to hypermasculinity, may also influence how a man perceives nonverbal communication when presented with consent negotiation scenarios. Therefore, it would be beneficial to understand whether some men are at increased risk of misperceiving nonverbal cues from a partner. It would be important to determine how this relates to the risk of perpetrating sexual violence and what support could be put in place to prevent this.

Thesis Aims

This thesis aims to contribute towards the understanding of consent interpretation, focusing specifically on how men perceive sexual interest from women. There will be a particular focus on the use of nonverbal communication and if/how this impacts the decisions men make about consent.

- Chapter two presents a systematic literature review that examines how men and women perceive nonverbal communication during sexual interactions. The findings are discussed in relation to research focusing on rape prevention programmes and how effective they have been at considering the role of non-verbal communication cues. It also discusses the need for additional research on perceptions of consent focusing specifically on nonverbal communication, as well as further investigation of factors that may impact consent interpretation, such as hypermasculinity.
- Chapter three provides an empirical study which focuses on how men perceive nonverbal behaviours displayed by a woman during a visual hypothetical date scenario. The study uses a quantitative methodology in order to measure how hypermasculinity (captured through the Conformity to Masculine Norms-46: CMNI-

46, Parent and Modari, 2009) and, sexual experience, contribute towards the decision they make regarding whether or not sexual intercourse occurs between the two characters following the date.

- Chapter four examines the Conformity to Masculine Norms Inventory (CMNI-46; Parent & Modari, 2009) in order to ascertain whether this is a reliable and suitable tool for measuring male conformity to masculine norms. This is a revised, shorter edition of the Mahalik et al. (2003) version of the Conformity to Masculine Norms Inventory and the findings are discussed in relation to its reliability, validity and academic use within research.
- Chapter five draws together the conclusions made in the preceding chapters; discussing the literature to date and how this research adds to the growing knowledge about consent, hypermasculinity, and how nonverbal communication is perceived by men during sexual encounters. In addition, discussion pertaining to strengths and weaknesses of this thesis, implications for practice, and suggestions for future research is provided.

CHAPTER TWO

HOW DO MEN INTERPRET NONVERBAL BEHAVIOURS DURING HETEROSEXUAL INTERACTIONS?: A SYSTEMATIC REVIEW OF THE LITERATURE

Abstract

This systematic literature review discusses the literature on sexual consent, and more specifically, explores research that compares how men and women interpret and communicate consent during sexual interactions. The literature suggests that while there are some differences in how men and women communicate their consent, other studies have found that there is a shared understandings of directive, verbal communication.

This review focused primarily on research that identified how men interpret nonverbal behaviours, and included nine studies which outline what these nonverbal behaviours were within the body of their report. An initial scope of the literature identified that there have not been any previous literature reviews examining nonverbal consent communication. Search terms were derived from extensively examining the literature for common phases and words incorporated within research that explored sexual consent. These search terms were used to complete journal searches for three electronic databases: Web of Science; Ovid Psych Info; and Proquest, including all years until the first week of May 2022. Over five thousand (N=5836) studies were identified which reduced to 2071 following removal of duplications. Following this, titles, abstracts, methodology and results were screened systematically to identify suitable studies (i.e., those that met the exclusion and inclusion criteria). This process resulted in nine papers which were included within the review.

The nine studies were quality assessed using the Quality Assessment Tool for Quantitative Studies, developed by the Effective Public Health Practice Project. All studies incorporated quantitative methodology and provided statistical results. The studies identified common themes in how men used nonverbal behaviours to display their own sexual intent, and how they interpreted sexual willingness from a partner.

The findings of included studies are discussed in relation to their generalisability to the wider population in the United States (US) and United Kingdom (UK). All but one of the studies gathered data from university student samples. The studies were critiqued using the wider consent literature and their findings were discussed comparatively. The review identified a need for larger age demographics within samples, and more variation in research designs to increase external validity, and generalisability of findings to the general population. Additionally, further investigation of specific nonverbal behaviours, such as non-response, is required to better understand disparities in the meaning of this response across contexts.

Introduction

Sexual violence continues to be a widely researched topic due to the devastating impact it can have on victims. As discussed in chapter 1, sexual assault is a broad term for a range of unwanted sexual behaviours including touching, exposure, and communication. The long-term effects of sexual assault, namely rape, on a victim have been associated with an array of psychological difficulties, including Post-Traumatic Stress Disorder (PTSD), Rape Trauma Syndrome (RTS), depression, anxiety, substance disorders, and difficulties in interpersonal relationships (Probst et al., 2011).

Research has focused on individuals convicted of sexual offences, and attempted to provide theory and risk measurement tools about those who portray and are at risk of engaging in this type of behaviour. This area of academia is vastly researched and continues to provide hypothesises, theory, and risk assessment tools in order to increase understanding and knowledge about men who engage in sexual violence. One suggestion regarding a potential factor involved in sexual offending focuses on gender differences in communication during sexual encounters. Research examining communication gender differences found that school-aged children living in the US had developed different language styles by the age of five (Haas, 1979). It was reported that boys used directive and instructional communication[5] more so than girls, who instead used language associated with compliance, such as using *please* and *thank-you* more so than boys (Lakoff, 1975). Brooks-Gunn and Mathews (1979) suggested that gender differences in language acquisition were representations of consolidated sex-roles within society and this manifests in the different experiences men and women have throughout their lives, starting in childhood. The notion of gender-specific communication

[5] Language signifying competitiveness, assertiveness, and authority that creates status hierarchy within their group (Eckes & Trautner, 2012).

has led to further research studying the impact that this may have on how men and women interact with one another, including during sexual encounters.

Miscommunication Theory

Chapter one introduced Tannen's (1992) developed miscommunication theory which states that men and women grow up with different cultural expectations about the role of communication. The theory suggests that communication styles are developed during early childhood experiences and consequently persist throughout one's life. Tannen (1992) states "when styles differ, misunderstandings are rife" (p.125). This notion is in line with the findings of many studies which demonstrate misunderstandings between men and women regarding sexual interest (Abbey, 1991; DeSouza & Hutz, 1996; Sawyer et al., 1993; Sprecher et al., 1994).

As mentioned in chapter one, miscommunication theory has been applied to non-consensual sexual encounters, with the results of many of these studies indicating that unwanted sexual contact, including rape, could be the result of men misinterpreting a women's verbal and/or nonverbal communication. Verbal communication relates to spoken language where there are common definitions and meaning associated with words, whereas nonverbal communication is described as a set of behaviours that have shared cultural value and understanding within a culture (Wiener et al., 1972). However, the miscommunication theory questions the assumption that there is shared understanding associated to verbal and nonverbal behaviour.

Research investigating differences in how men and women behave has found that men can be more sexually driven compared to women (Abbey, 1982; Goodchilds et al., 1988), and that this "preoccupation with sex means that they are liable to overestimate sexual interest from women" (Muelenhard, 1988, p.31). However, this assumption does not explain why

only some men appear to misperceive women's behaviours, yet others do not. Murphy et al. (1986) suggest that some men are more inclined to misperceive women's behaviours and these men suffer from difficulties in their ability to distinguish between seductive and friendly behaviours. Abbey (1982) found that men rated women's behaviour during a five-minute conversation to be more seductive and promiscuous compared to women who were observing the same interaction. Abbey (1982) proposed that men perceive friendliness from women as an indication of sexual interest; empirical findings are consistent with this hypothesis (e.g., Abbey 1987; Johnson et al., 1991; Saal et al., 1989; Shotland & Craig, 1988). Therefore, these findings offer support for the miscommunication theory by suggesting that men are more inclined to misperceive women's behaviours and typically overestimate their sexual interest, which may result in sexual violence.

Traditional Sexual Scripts (TSS)

Traditional Sexual Scripts (TSS) place an emphasis on gender roles for men and women in relation to their sexual behaviours (Weiderman, 2005). Muehlenhard et al. (2016) suggest that one TSS is that men believe that it is up to a woman to demonstrate or decline sexual consent. TSS proposes that it is a man's role to initiate sexual interactions and believe that women ought to act as a 'gate keeper' regarding sexual activity (White & Niles, 1990); ultimately restricting or permitting sexual activity (Gagnon & Simon, 1973; Perper & Weis, 1987; Sprecher & McKinney, 1993). Research findings support this proposition, such as Humphreys (2003), who found that male participants believe that men should initiate sexual activity with women. Semonsky and Rosenfield (1994) found similar results, with female participants believing that men should initiate sexual activity as opposed to women. These two studies suggest that men and women share a mental representation, or script, of how

sexual interactions should be initiated with regard to gender. This, in turn, reinforces TSS in women and men's verbal and nonverbal behaviour with regard to sexual consent.

O'Sullivan and Byers (1992) found differences in how men and women communicate consent; while nonverbal responses were used by both genders, women use nonverbal indicators to communicate their consent more frequently than men (Newstorm et al., 2020). Gender differences in regards to how men and women express consent have been investigated, with research focusing on studying the origins of these gender differences. The term "token resistance" was coined to describe the phenomenon whereby a woman, who has declined sexual activity, does not really mean it, but declines in an effort to display modesty. To describe this phenomenon, Muehlenhard and Hollabaugh (1988) draw upon a common scenario in pornography, whereby a woman refuses a man's sexual advances and subsequently, she engages in sexual intercourse with him, despite previous refusals.

Token resistance is thought to be a heteronormative belief [6] and has been widely researched, with findings showing that men widely endorse this, believing that token resistance characterises women's behaviour during sexual pursuits (Byers, 1996; Gilmartin-Zena, 1988; Johnson & Jackson, 1988; Sandberg et al., 1987). However, there has been conflicting research results, with some studies finding that women are sincere when they say "no" to engaging in sexual activity with male partners (Muehlenhard & Hollabaugh, 1988; Muehlenhard & McCoy, 1991; Muehlenhard & Rodgers, 1998; Shotland & Hunter, 1995; Sprecher at al., 1994). However, the findings are mixed, with other studies finding that women self-report engaging in token resistance in real life experiences (Krahe et al., 2000; Muehlenhard & Rodgers, 1988). Muehlenhard and Rodgers (1998) investigated this further,

[6] Heteronormative beliefs are reported to be constructed driving forces "underlying social pressures to conform to socially acceptable gender roles and sexual behaviour (Rich,1980; Tolman, 2006; Warner, 1991)," Habarth, 2015, p. 167.

and found that some women display token resistance in response to not being able to proceed with sexual intercourse due to practicality reasons, such as lack of access to contraception, and therefore this is perceived as token resistance. Additional research on token resistance has focused upon the characteristics of men who are more likely to have these views. Hypermasculinity is one of the factors which has been found to be associated with strong views about TSS (Abbey et al., 2011; Murnen et al. 2002; Santana et al. 2006) and token resistance (Osman & Davis, 1999; Shafer et al., 2018; Shi & Zheng, 2022; Vechiu, 2019).

Verbal communication

The way in which individuals communicate their sexual intent has been widely studied. Research has found that men and women share an understanding of verbal communication cues that clearly indicate whether a person wants to engage in sexual activity (O'Bryne, 2006; O'Bryne, 2008). Verbal consent, or affirmative consent, as it is sometimes called within the literature, relies on men and women giving positive verbal statements throughout sexual interactions about their agreement to continue, without the influence of alcohol or drugs (Johnson & Hoover, 2015). However, research seems to suggest that verbal consent is not always present during sexual interactions, particularly between young adults (Gronert, 2013; Jozkowski et al., 2014). Humphreys (2004) found that direct verbal consent, such as "do you consent to having sex" are awkward and can ruin the moment (Cameron 1994). Therefore, indirect verbal communications have been identified. This relates to verbal statements that are less directive, but can be interpreted as a person indicating that they wish to engage in sexual intercourse. The literature has identified a range of statements that are commonly used by men and women, such as "do you have a condom" (Hickman & Muelenhard, 1999), and some studies report that men and women have a mutual understanding of indirect verbal communication. However, Hickman and Muelendhard

(1999) also found that there can be discrepancies and men tend to overestimate a woman's sexual intent; therefore, perceiving women to be interested in engaging in sexual intercourse, when women are not interested. Further research has also found that men and women may have different intentions within the indirect verbal communication they use. For example, Newstorm et al. (2020) found that men and women use the statement "I am really drunk" differently; with women inferring that they do not want to engage in sexual intercourse, whereas men use this statement to indicate their sexual intent. Gender differences such as this suggest that misperceptions about sexual consent could be prevalent within sexual encounters and provide support for the miscommunication theory.

Research on sexual refusal communication indicates similar results in relation to men and women having a common understanding about direct verbal refusals, such as saying "no" (O'Byrne, 2006). However, there are gender inconsistencies in perceptions of women's indirect verbal communication. Motley (2008) found that men interpret women's indirect verbal communication cues in relation to their own sexual intentions. For example, if a woman stated that she needed to leave, as she has work in the morning, then men assume that this means that she wants to skip straight to intercourse and miss the "preliminaries" (foreplay) (Beres, 2014). Research has suggested that in order for there to be less chance of miscommunication, women must not be ambiguous in conveying cues regarding sexual consent or refusal. However, as mentioned in chapter one, Beres (2014) reports that perhaps female ambiguity is not the issue and there should be less focus upon this during sexual prevention courses as sexually aggressive males would be motivated to assault females no matter how clearly she were to indicate her refusal. Therefore, the literature detailing how individuals use verbal communication to signify and perceive sexual consent remains conflicting; however, some common functions have been identified.

Nonverbal communication

Much of the consent literature reports that individuals rely on nonverbal communication to communicate and interpret a partner's sexual intent (Beres, 2010; King et al., 2021; Jozkowski, 2014). Once again, nonverbal communication has been identified as either direct or indirect, with a wide variety of behaviours used within each sub-category. Direct nonverbal communication includes behaviours such as person pushing someone away from them, or a partner no longer reciprocating sexual activity such as kissing (Beres, 2010). Studies have found men and women both understand that some direct nonverbal communication, such as those aforementioned, indicate nonconsent.

Indirect verbal communication has been found to include more intimate behaviours, such as kissing and touch (Kowalski, 1992). This research has been mixed in relation to how men and women communicate direct and indirect nonverbal communication. Within the indirect nonverbal communication research, increased gender differences have been found in how men and women communicate their sexual willingness, and how they refuse. Hickman and Muelenhard (1999) found that men interpret a woman's lack of response to be indicative of her sexual consent. However, O'Bryne (2006) found that some women display this behaviour when they are signalling their lack of consent. Furthermore, researchers have attempted to establish where people learn about what nonverbal behaviours are signalling. One proposed area for this learning in through the mainstream media. As discussed in Chapter one, research examining consent communication in mainstream and pornographic films has found that sexual intercourse proceeds without clear consent communication (Willis et al., 2020); this could reinforce negative attitudes and values around obtaining affirmative consent (Jozkowski, 2014). Therefore, the current literature suggests that better understanding is required about what nonverbal behaviours men and women use during sexual interactions, as

well as whether these nonverbal behaviours are indicative of sexual intent, and how these are perceived by their partner.

The current review

The current review describes and critiques the literature that has investigated how men interpret nonverbal behaviours during heterosexual interactions. The review will identify whether there are specific behaviours that have been found to be misinterpreted by men as a woman displaying sexual consent. The implications of these findings will be reviewed in relation to miscommunication theory and other relevant literature. The following questions will be addressed:

- How do men interpret nonverbal behaviours during heterosexual encounters?[7]
- How often do men perceive sexual consent through nonverbal behaviours displayed by a female partner?
- What are the specific behaviours that men identify as being used by a woman to indicate her intention to progress with sexual activity?
- Can results from studies implementing vignette designs be generalised to the general population?; a discussion of external validity.
- Is the current literature representative of the general population of men? (i.e., can it be applied to men across countries, ethnicities, socioeconomic status and ages?).

Methodology

Scoping search

[7] This question was adapted following feedback from examiners to reflect the findings from the studies included within the review more accurately.

Prior to conducting a literature search, an initial scoping exercise was completed in order to establish whether there had been any previous systematic literature reviews on this topic. Searches were run on the Cochrane Database of Systematic Reviews, Centre for Reviews and Dissemination (DARE) and Campbell Collaboration Library of Systematic Review, all of which produced no evidence of previous reviews being completed. Muehlenhard et al. (2016) produced a review of the sexual consent literature, however, this broadly discussed the research and did not specifically examine the role of nonverbal communication. A search was also carried out on Ovid: Psych-Info (bibliographic database), by setting additional limits under the methodology subsection, and selecting Systematic Reviews. Similarly, no results were found and therefore it can be confidently assumed that, to date, there has not been a published systematic literature review that primarily focuses on the role of nonverbal behaviours in sexual consent.

Sources of Literature

The following electronic databases were searched in order to gather relevant material for the review.

- Web of Science
- Ovid: Psych-Info
- ProQuest

Search Terms

A list of search terms was derived using common language associated to literature exploring consent. This included looking at key words of well-known article, analysing article's titles and reference lists, and discussions with an academic supervisor. Table 1 below shows the list of words identified during the scoping exercise and how these were searched (Appendix A shows a breakdown of the search syntax).

Table 1

Search words and format

Search Word	Search format
Consent (consent, non-consent, consensual, non-consensual)	*Consen* non-consen*
Sex (sex, sexual, sexualise/ sexualize, sexualisation/ sexualization)	Sex* sexuali?
View (View, views)	View*
Perspective (perspective, perspectives)	Perspective*
Perceive Misperceive (perceive, perceiving, perceives, perceived)	Peceiv* *perceive
Perception Misperception	Perception* *misperception*

Intent (intent, intension, intentisions)	Inten*
Willing Willingness Will	Will*
Judgement Judgements	Judgement*
Opinion Opinions	Opinion*
Attitude Attitudes	Attitude*
Negotiation (negotiate, negotiation, negations, negotiates)	Negotat*
Behaviour (behaviour, behave, behaves)	Behave* Refus*

Refuse (refuse, refusal, refuses, refusals)	
Communicate (communicate, communicates, communication, communications	Communicat*

In order to identify relevant publications, a hierarchy of terms were established. Table 2 displays the three searches.

Table 2

Search terms

Search	Search terms
Search one	1. Sex* or sexuali$* 2. 1 AND Behave* or communicat* or negotat* or refus* or miscommunicat* 3. Consen* or non-consen* 4. 2 and 3
Search two	1. Sex* or sexuali$* 2. *Consen* or non-consen* 3. View* or perspective* or pereiv* or inten* or judgement* or willingness or opinion* or attitude* or perception* or misperception* 4. 1 & 2

Search three	1. Combination of search 1 and search 2.

Inclusion Criteria

Inclusion and exclusion criteria's (Appendix B) were applied using the PICO (Higgins & Green, 2013) framework according to its predefined terms; population, intervention, comparator, and outcome.

Population

Studies were included if the study aimed to identify which behaviours men interpret to be indicators of sexual consent from a partner during a heterosexual interaction. Therefore, the review includes studies that have attempted to measure male perceptions. Much of the research focusing on consent has been collected using university student samples; however, this characteristic is not exclusive. Consequently, the review will include studies which use adult samples, regardless of student status, with a particular emphasis on male findings. Studies with comparative gender designs and results will be considered in relation to their findings, as well as the inclusion of male only samples that focused on issues of consent. Studies which measured perceptions of consent when intoxicated were not included in order conduct a review which focused on how men interpret consent when not under the influence of substances, which may impact their impairment.

Intervention

Across the literature, different methodological techniques have been employed to measure consent with both qualitative and quantitative designs being utilised. This review aims to analyse results produced with quantitative research methods only, as these studies typically use larger samples than qualitative research, and therefore the results of this review might be more generalisable to the wider population. All studies included will specifically

outline the nonverbal behaviours they have attempted to measure; studies which refer to nonverbal behaviour but do not specify what these behaviours are in the abstract, methodology, or results sections have not been included within the review. This review aims to analyse which nonverbal behaviours have been identified within the literature and discuss how men perceive these specific behaviours to be indicators of sexual consent, or refusal.

Comparator

Gender differences have been frequently examined within the literature, with researchers identifying similarities and differences in how men and women interpret and communicate consent. The primary focus of this review is to establish how men perceive nonverbal behaviours displayed by a female partner, and to assess whether their perceptions were accurately measuring their partners willingness to engage in sexual activity. Therefore, studies which measure both men and women's nonverbal communication behaviours have been included in order to identify if there are gender differences in how sexual intent is communicated by women, and ultimately perceived by men.

The procedures that the studies employed to measure consent were examined in regards to their findings, and whether there were any variances within the results depending on how the data was collected. Vignettes and survey designs are the main methodological choice in quantitative studies collecting data on issues of consent. However, some studies included open-ended questions following Beres (2010) recommendation that qualitative research methods are the best way to closely examine behaviours and decision-making processes associated with sexual consent. Therefore, some quantitative studies have incorporated this recommendation and included open-ended questions which were coded in order to be statistically analysed. Consequently, studies using these designs were included within the review and their results were discussed in relation to data collection methods.

Outcome

Studies that produced results that specifically measured men's perceptions towards nonverbal behaviour during heterosexual interactions were included within the review. The studies included participant samples containing mixed gender samples (i.e., men and women) as well samples only including men. No studies that used women only samples were included within the review as this research was found to not represent how men interpret nonverbal sexual consent. All studies included within the review contain details about participants' responses to nonverbal behaviours and outline what these nonverbal behaviours are. A list of studies that discuss how men perceive nonverbal behaviours but do not specify what these behaviours are within the body of their research paper have been excluded from this review but can be found in Appendix C.

Inclusion / Exclusion Table and Checklist

An inclusion/ exclusion checklist was developed (see Appendix B) following the initial scoping exercise. This initial review of the literature identified general themes within the miscommunication theory research questions pertaining to consent. These included: what are the verbal and nonverbal communication behaviours that are being portrayed during sexual interactions; how is sexual intent communicated by men and women; how is consent interpreted; and are there gender differences in how men communicate and interpret consent from partners during sexual interactions? This review places a focus on how men perceive nonverbal behaviour during heterosexual sexual interactions, as the research within this remit remained mixed.

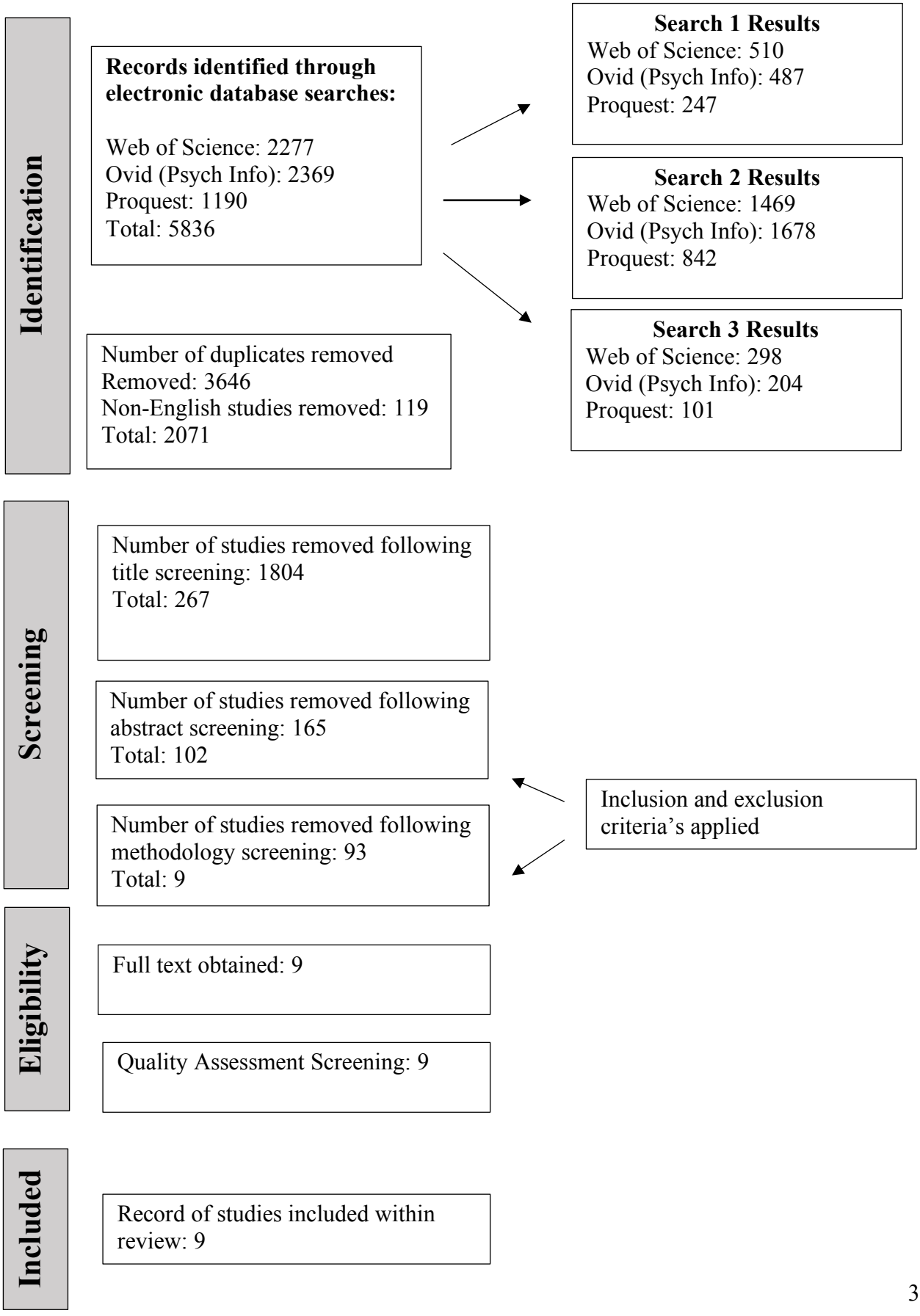
As a result, an inclusion checklist (Appendix B) was developed which aimed to identify studies which attempted to answer the research question listed above. Studies were initially reviewed based upon their title to ensure that they were measuring behaviours

associated with obtaining and understanding sexual consent. Following this, the inclusion and exclusion criteria were applied to the abstracts in order to identify research which helped to address the research question. If it was unclear from the abstract whether a study met the inclusion/ exclusion criteria, its methodology and results sections were reviewed which was found to be a successful way to identify relevant papers. Through reviewing the study's methodology and results sections, the author was able to identify which studies had specifically identified the nonverbal behaviours portrayed during sexual interactions, and how the researchers attempted to measure whether participants indicated that this was representative of sexual consent (e.g., she gave him a back massage).

All publications which met inclusion criteria were included within this review. Studies that appeared to meet the inclusion criteria, but were excluded following their methodology and results sections being reviewed, can be found in Appendix C.

Figure 1

PRISMA flow diagram depicting search results and elimination process.



Quality Assessment

When undertaking a systematic literature review, it is recommended that a quality assessment tool is used in order to assess the validity, credibility and/or quality of the primary evidence before including it in the final review (Sanderson et al., 2007). Sheehra et al. (2016) found that the majority of systematic literature reviews they collected (71.8%) used a quality assessment measure and consideration was given to this in the body of the review. They identified 54 combinations of quality assessment tools used in the 309 systematic reviews they analysed and concluded that it is common practice to use these measures when conducting such studies. Following the Deeks et al. (2003) review of methods evaluating bias in non-randomised intervention studies, 11 tools were suggested to be the most appropriate tools for quality assessing research, one of which is the Quality Assessment Tool for Quantitative Studies developed by the Effective Public Health Practice Project (EPHPP, 1998) (see Appendix D). This tool measures selection "bias, study design, confounders, blinding, data collection methods, withdrawals and drop-outs, intervention integrity" (EPHPP see Appendix D) and analyses in order to give the study a global rating of weak, moderate or strong. Specific rules are applied to each of the eight subsections and a paper is scored to determine whether it meets a strong, moderate or weak global rating. The scores were converted into percentages following scoring, and quality varied between 69.3% – 100%. This indicated that none of the studies appeared to be of unsatisfactory quality and therefore were included within the review.

Data Extraction

A data extraction form was developed by the researcher in order to identify, extract, and record the relevant information detailed in each of the studies (Appendix F). Using the themes developed through the PICO framework, questions were derived addressing relevant

aspects of the studies sample, design, and results. Further sections were added to record limitations of the study as well as additional comments considered during the data extraction process. Data extraction was applied to the nine papers identified for the review.

Results

Table 3

Summary of studies included within the review.

Author, Date & Title	Participant information	Study aims	Methodology	Key findings	Strengths & Weaknesses	Quality rating
Hickman, S. E., & Muehlenhard, C.L. (1999) "By the semi-mystical appearance of a condom": How young women and men communication sexual consent in heterosexual situations.	188 women and 190 men. Mean age of 19. All undergraduate college students studying at an American University. Heterosexual participants	The aim was to address the following questions: Are there gender differences in whether the participants are able to imagine themselves in the scenario? What consent behaviours do men and women report using the most? Do men and women use consent signals differently in real situations?	Survey design with vignettes incorporated to measure verbal and non-verbal communication during a date scenario. The participants were randomly assigned to conditions. Condition 1 were given a consent questionnaire that depicted a verbal heterosexual sexual initiation ("do you want to have sex with me?"). Condition 2 were provided a consent questionnaire depicting nonverbal heterosexual initiations ("you make a sexual advance by sitting close to him/her, kissing him/her and then starting to undress him/her" pg. 264). Participants were asked if they could imagine themselves in the vignette scenario. *Date-initiation scenarios:* Next, they were provided with 34 behaviours that had been collated following a	<u>NVB results:</u> Men and women demonstrated that they show consent to sexual intercourse through making no response. The "no response subscale" (p. 264) was significantly higher for women than all other subscales, except "indirect verbal subscale" (p.264). "Men's no-response subscale was "significantly higher" (p.264) than other subscales. Men and women did not make "statements about intoxication" (p. 266) or use "direct refusal" (p. 264) to indicate sexual consent. Participants scores for indirect nonverbal behaviours showed were higher following verbal initiations. Participants stated that "indirect verbal behaviours" (p. 264) would be more representative of their consent and the dates consent following nonverbal behaviour. Participants were more likely to initiate sexual intercourse non-verbally as opposed to verbally $x^2(1, N = 378) = 21.34, p < .001$	Strengths: this study provides some support for the miscommunication theory by suggesting that men and women may communicate their consent to sexual intercourse in different ways. However, these gender differences were minimal, and both men and women have a shared understanding of direct refusal signals. Therefore, miscommunication does not account for acquaintance rape. The authors attempted to increase validity by only including participants who stated that they could imagine themselves within the hypothetical date scenarios and had previously engaged in penile-vaginal intercourse. This study produced a list of behaviours that included verbal and non-verbal signals following a rigorous pilot study which allowed participants to be presented with varying behaviours and asked how frequently they used these signals and how they perceive them from another.	Strong

	Do people use the signals when interpreting another person's consent? What impact does sexual initiation behaviour have on ratings? What impact does gender have of self-consent rating and interpretations of date-consent ratings? Are there gender discrepancies between how consent is communicated and interpreted which would	pilot study. They were asked to rate whether these behaviours would be indicative of their date (in the hypothetical vignette) demonstrating sexual consent ("0 does not show his/her consent to sexual intercourse – 6 most definitely shows his/her consent to sexual intercourse pg. 262)". Participants were asked to "imagine that their date had made verbal or nonverbal sexual advances towards them." (p.261). They were asked if they could imagine themselves in this scenario. *Self-initiation scenarios:* Participants were asked to rate whether the same 34 behaviours were indicative of them giving sexual consent towards their hypothetical partners sexual advances *(0-6 scale*). The order of the study was counterbalanced, with half completing the date-initiating scenario first and the other half completing the self-initiating scenario first.	<u>Other results:</u> Significantly more men imagined themselves initiating sexual intercourse compared to women. Women were found to use indirect verbal communication to communicate their consent more so than men. There were minimal gender differences in the use of direct verbal, direct nonverbal and direct refusal signals. Men were found to have different understandings and overestimate women's behaviour (nonverbal and verbal) as indicators of sexual consent.	<u>Weaknesses:</u> The sample consisted of an 84.7% European American sample and therefore is difficult to generalise to other ethnicities. This research was specifically representing heterosexual American College students. With the authors removing any participants over the age of 26, international students, and men and women who do not identify as heterosexual. Therefore, further research is required to capture the behaviour around consent for different ages, ethnicities and sexualities. Sexual consent might be conveyed differently within different relationship lengths. This study specifically focused on a date-scenario and therefore it remains unknown about how the participants demonstrate consent in different scenarios, such as with long term partners or one-night-stands.

	support gender-rated miscommunication?	Participants who were not able to envision themselves in the scenario were asked to answer from an outside observers' perspective. These participants were not included in the analysis for scenarios in which "they could not imagine themselves in (*n*= 106 for self-initiation and *n*= 24 for date-initiation scenarios)" p. 263.. "Actual self-consent rating" (p. 261): participants were asked to rate how frequently they display the 34 behaviours to indicate sexual consent in real sexual encounters.. Participants who had not had sexual intercourse (defined and vaginal-penile intercourse) were removed from the final analysis. Accuracy checks included ensuring that the participants were reading the vignettes (*N* = 29 removed). One of the 34 behaviours was removed from the final analysis due to miswording.		

Humphreys, T. (2007) Perceptions of Sexual Consent: The Impact of Relationship History and Gender	415 (64% female and 36% male) students enrolled into a psychology undergraduat e degree at a Canadian University. Participants age ranged from 17-66 years. Mean age 19.7. 98% of the participants identified as heterosexual and 2% as bisexual.	What impact does relationship length have on perceptions about how consent is communicat ed and perceived?	A between-subjects design was used. Participants were randomly assigned to 1 of three vignettes which varied in relationship length (first date, 3 month relationship or 2 year marriage). The first date condition had not previously had sexual intercourse, the 3 month condition stated that they had sexual intercourse several times over the time period and the 2 year marriage condition stated that the couple had regular sexual intercourse over the marriage. An additional variable was introduced for the 2 year marriage condition, with the participants being informed that it was their wedding anniversary. The vignette depicted a non-verbal interaction between a man and woman who are watching a film at home. It described the man as initiating sexual activity through touching the woman's breast, but she would like to continue watching the film. The man is described as removing the	Results found that as the hypothetical couples relationship increased in length, the "more that the couples nonverbal behaviours are just as effective as verbal communication to indicate consent, **F**(2, 414) = 12.86, p <.001" (p.312). Similarly, results showed that participants felt that "the hypothetical couple were able to read each other's signals with enough accuracy to assume sexual consent **F**(2, 414) = 19.02, p < .001" p.312). The first date scenario produced different results to the three month and marriage conditions. Participants felt that "the male should have asked for consent to kiss to the woman" ***F***(2, 414) = 17.19, p < .001" (p. 312), and "consent should be given before any kind of sexual activity began **F**(2, 414) = 10.43, p < .001" (p. 312), compared to the longer length relationships. Participants in the first date condition found verbal consent would have ruined the mood less than participants in longer length relationship conditions, "**F**(2, 413) = 5.60, p = .004" (p.311). Participants agreed to the following statements: "Sexual consent is okay	Strengths: the findings support the Precedence hypothesis (Shotland and Goodstein, 1992) as the participants rated that sexual consent can be assumed in accordance with relationship length. This study demonstrated that this shift can happen over a fairly short amount of time (significant differences between 1^{std} date and 3 month relationship). Supports previous literature that found gender differences in how men and women communicate and perceive sexual consent. Weaknesses: This study employed a student sample and therefore the results may not be representative of the wider population. The students were asked to predict behaviour within relationships, such as a 2-year marriage. These results may vary if they were used with a sample who had similar lived experiences and therefore the current samples age and life experiences may impact the validity of these results. The participants were also asked to make predictions about	Strong

	woman's top and the couple have sexual intercourse. Following reading the vignette, the participants completed a questionnaire containing 17 questions that measured "sexual consent, clarity of intent and acceptableness of behaviours" (p. 310) used by the characters in the vignette. These are rated using 1 (strongly agree) – 7 (strongly disagree) Likert scale. The participants attitude towards obtaining sexual consent were measured through two questions. Question 1 asked whether "it is ok to assume yes until you hear no" (p. 310) during sexual advances. Question 2 asked whether participants should ask for verbal consent before proceeding with sexual advances. The participants were presented with 11 nonverbal behaviours and asked which "items would need a clear and explicit indication of consent" (p. 311) before	to assume, **F**(2, 414) = 7.13, p = .00" (p. 310). the mans approach to instigating sexual intercourse was acceptable, **F**(2, 414) = 13.85 p < .001, and "if the woman did not want to have sex, she would have stopped the man, **F**(2, 414) = 4.34, p .014" (p. 310) for the first date encounter, compared to the longer length relationship conditions. Participants in the 2 year marriage condition rated that "more explicit communication was [not] necessary" (p. 310) compared to participants in the first date and three month conditions, **F**(2, 413) = 13.57, p < .001. Gender differences: Men agreed more so than women that the woman in the scenario consented to sexual intercourse, "**F**(1, 414) = 14.21, p < .001" (p.311). Similarly, men rated that the woman's nonverbal behaviours clearly indicated her consent more highly compared to women participants, **F**(1, 414) = 11.54, p = .001 and that the man's nonverbal behaviour in the scenario indicated that he was asking for consent, "**F**(1, 414) = 16.28, p < .001." (p. 311)	behaviour from a third person perspective, as opposed to being asked about their own behaviour. Therefore, this may represent views about how they think others behave, as opposed to how they would behave, which could have increased reliability and validity of the findings.

		engaging in these behaviours.	Men also rated that the mans approach was acceptable, "**F**(1, 414) = 14.38, $p < .001$" (p. 311), and the woman would have stopped the man if she did not want to have sexual relations, **F**(1, 414) = 11.36, $p = .001$ compared to women participants. Men also rated that "nonverbal behaviour is just as effective as verbal communication to indicate consent **F**(1, 414) = 22.66, $p = .001$" (p. 311), the couple were able to "read each other's signals with enough accuracy to assume consent, **F**(1, 414) = 15.36, $p < .001$" (p. 311) and that "asking for consent would have been awkward, **F**(1, 414) = 32.17, $p < .00$" (p. 311) and ruined the mood, "**F**(1, 414) = 33.06, $p <$ .001, p. 311) more so that women participants. Men were more likely to assume consent and continue with sexual activity until a partner indicated otherwise, compared to women, "x^2 (1, $N = 414$) = 6.36, $p = .012$" (p.312). Participants rated that the "need for explicit consent" (p.312) in the new relationship compared to the established ones.

Jozkowski, K. N., Peterson, Z. D., Sanders, S. A., Dennis, B., & Reece, (2014) Gender Differences in Heterosexual College Students' Conceptualizations and Indicators of Sexual Consent:	185 heterosexual college students enrolled in an American University. 100 women 85 men. 66.7% within 18-20 age group, 29.5% in 21-23 years and 3.8% in 24 and up group.	"How do college students define consent?" (p. 907) "How do college students express and interpret consent within real-life sexual encounters?" (p. 907).	Survey design which incorporated "24 closed-ended questions from the national Survey of Sexual Health and Behavior (Herbenick et al., 2010)" and "16 open-ended questions" (p. 907) derived following a pilot study. The open-ended questions asked participants to define consent, described how they indicate their sexual consent during sexual interactions, how they interpret consent from their partner and how they indicate/ interpret consent for varying sexual activity. They were encouraged to include verbal and nonverbal behaviours they displayed during these encounters. Open-ended questions were coded in order for these responses to be quantitively analysed. Cohen's kappa scored indicated interrater reliability (0.89).	"There were no statistical gender differences regarding how consent was defined" (p. 909). "Participants were more likely to endorse verbal as opposed to nonverbal indicators of consent, $X^2(9, N = 161) = 15.10, p < .022$ and non-consent $X^2(2, N = 183) = 7.27, p < .001$" (p. 910). However, gender differences emerged, with men being more likely than women to endorse nonverbal cues to indicate consent. Women were found to use a "combination of verbal and nonverbal cues" (p. 910). Women reported that they "do not say no" and "let sexual activity happen" (p.910) more so than men. However, this was not statistically significant. "Participants were more likely to use nonverbal than verbal indicators to interpret their partners consent, $X^2(6, N = 173) = 3.18, p < .05$" (p. 911). Participants are also "more likely to use verbal as opposed to a combination of verbal and nonverbal cues to interpret their partners non-	<u>Strengths:</u> the study was able to gather richer data due to the use of open- ended questions, which provided greater insight into how what methods the participants have used to initiate and interpret sexual activity. The study was able to collate data on different types of sexual activity and the results showed differences in how the participants communicate their consent across a range of different sexual activities. This demonstrates the complexities of interpreting consent across different sexual acts. <u>Weaknesses:</u> the sample is not be representative of the general population and therefore the results might not be generalisable beyond American, heterosexual college students. A small percentage of the sample had not engaged in the sexual behaviours studied ("genital touching, 9.6%, oral sex 11.7%, vaginal-penile intercourse 16.4% and anal sex 81.9%" p. 914) and therefore their responses are based on predictions of how they think they might behave as opposed to past experiences,	Strong

				consent, $X^2(4, N = 180) = 8.65, p < .05$." (p.911) "Men were more likely than women to assume consent" (p. 910) exclusively through nonverbal behaviours. Women (30%) used "verbal cues to interpret their partners consent" (p. 910) compared to men (10%). Men reported that they would rely on nonverbal cues to indicate non-consent, whereas "women were more likely to use a combination of verbal and nonverbal cues from their partner to indicate" (p. 910) from their non-consent. Participants were "more likely to use verbal consent for more intimate behaviours" (p. 911) such as intercourse compared with sexual touching. "21 deceptive or aggressive responses" (p. 912) were recorded from men participants, whereas no women reported using these tactics to obtain consent.	which may impact the reliability of the findings. The majority of the sample were aged between 18-20 and of white ethnicity and therefore this again impacts the generalisability of these results.	
King, B. M., Fallon, M. R., Reynolds, E. P., Williamson, K. L., Barber, A.,	553 students; 422 women and 128 men who were	"Do college students subjectively interpret multiple	The participants completed a survey during a class. There were asked to rate how indicative 26	43.1% of the women rated "0" (definitely no) to all 26 behaviours, whereas 20.3% of men put this response.	Strengths: supports previous research which suggests nonverbal behaviours would benefit from being studied in combinations as opposed to	Moderate

& Giovinazzo, A. R. (2021) College students' perceptions of concurrent/successive nonverbal behaviors as sexual consent.	enrolled in an undergraduate degree in an American university. The mean age for female participant's was 19.8 and male 20.1,	nonverbal behaviours to be greater indication of sexual consent compared to single behaviours?" (p. 4) "This study focuses on nonverbal signals of consent for heterosexual couples" (p.4).	behaviours were of providing sexual consent. The behaviours consisted of nonverbal or a "combination of verbal and nonverbal behaviours" (p. 4) and there were rated on a 7-point Likert scale. The participants were given 9 single behaviours, 9 combinations of two of the single behaviours and 8 combinations of three of the behaviours. Eight of the nine behaviours were selected from previous research. The wording of one behaviour was changed to fit contemporary language. The combinations of behaviours were "selected by undergraduate members of the research team" (p. 6) in order to fit with current dating scenarios.	Men gave higher Likert scores compared to women; 15.2% of women scored "3" or above, whereas 35.2% of men rated 3 or above for the behaviours. The Likert scale was interpreted as indications of sexual consent, with 0 representing no consent and higher scores representing stronger indications of consent. "Both men and women's perceptions of consent increased" (p. 8) with more combinations of behaviours, with the three-combination condition producing the highest Likert scores, suggesting perceived sexual consent. However, the men's scores exceeded the women's in all three conditions. Behaviours are more likely to occur concurrently and consent is interpreted more often when presented with more than one nonverbal behaviour. Gender differences were found for how often men and women rated "0" indicating "no consent" with women typically applying the 0 value more often than men.	isolated behaviours as this is more representative of real-life (Muehlenhard et al.. 2016) Gender differences were found, however, the results also highlighted that the "0" no-consent value was the least used value, therefore inferring that the behaviours may all be interpreted as indicators of sexual consent in varying situations/ contexts. Weaknesses: A student sample was collated and these results may not be representative of other ages. The sample was uneven within the men to women ratio and therefore more significant results may have been found if the sample representation had been even.

Kowalski, R. M. (1992). Nonverbal behaviors and perceptions of sexual intentions: Effects of sexual connotative-ness, verbal response, and rape outcome.	Pilot Study: 182 men and 186 women Study 1: 270 men and women undergraduat e students were recruited. …… Study 2: Sample contained 45 men and 45 women.	Study 1: "What are the combined effects of verbal and nonverbal behaviours in the area of sexual assault?" (p. 431). …….. <u>Study 2:</u> how to participants interpret nonverbal behaviours in the absences of any other information.	<u>Pilot Study:</u> Participants were provided with a list of 27 social behaviours and were asked to imagine that a heterosexual couple were on a date. Using a 5 point Likert scale ("1 being no interest in sex and 5 being an intense interest in sex", p. 432), they were asked to rate if the behaviours indicative of the women wanted to have sexual intercourse. The average ratings by men and women participants were obtained, and "Kendall's coefficient of concordance showed that men and women agreed closely in rank order for the behaviour's connotations" (p. 432). The behaviours were ranked as; "High: she removes her blouse, touches his genitals and undresses him. Medium: she offers to rub his back, places her hand on his thigh and passionately kisses him. Low: she holds his hand, maintains eye contact with	Study 1 As nonverbal behaviours increased in sexual connotation, the more participants rated that the women desired sexual intercourse, **F**(92, 500) = 100.79, $p < .001$. Men rated the women's desire to have sex as significantly higher than female participants, **F**(1, 500) = 4.31, $p < .04$. When participants were not informed of the women's "response to the man's sexual advances" (p. 434), they rated her desire to have sex as higher ($M = 6.5$) compared to when they were told that "she said no ($M = 3.8$) or slapped the man ($M = 3.7$)" p.434.. Participants also perceived the women's desire to have sex more in the "no-forced sex condition ($M = 5.3$), compared to the forced-sex condition ($M = 4.0$), **F**(1, 500) = 36.99, $p < .001$" (p. 434). As the nonverbal behaviours increased in sexual connotation, as *so* did participants perceptions of the woman's flirtatiousness, **F**(2, 493) = 155.42, and promiscuousness, **F**(2, 493) = 145.77, $p < .001$.	*Strengths and weaknesses of both Study 1 and 2.* Strengths: Weaknesses: The study did not report additional demographic information about the participants, such as age ranges, ethnicity or location in which the sample were recruited. The study does not specify in Study 1 how many men and how many women took part.	Moderate

	him and they slow dance" (p. 432). ……... Study 1: participants were given a vignette depicting a "prototypical acquaintance rape" (p.431) scenario (Abbey, 1982; Muehlenhard, 1988). The women engaged in "high, medium or low" nonverbal behaviours and the man responded by "pulling her close to him" and "attempting to undress her" (p.431). The participants were then told that the women wither "verbally objected, verbally and physically objected or were provided with no information about her response" (p. 431). The participants learnt that the man either forced the women to have sexual intercourse or that he stopped his sexual advances. Participants completed a questionnaire following reading one vignette scenario and were asked to rate (using 12 point Likert scales) the women's "desire for sexual intercourse, flirtatiousness, promiscuity"	Participants also found the women to be more promiscuous in the "no-forced sex condition" (p.434) (M = 6.3), compared to the forced-sex condition (M = 5.9), **F**(1, 493) = 4.79, $p < .03$. The woman was also "perceived to be more promiscuous when they had no information about her verbal response (M = 7.1), compared to when she said no (M = 5.4) or slapped the man (M = 5.8), **F**(2, 493) = 22.60, $p < .001$" (p.435). Participants also attributed more responsibility onto the woman as the nonverbal behaviours increased in sexual connotation, **F**(2, 504) = 75.41, $p < .001$. Men (M = 5.5) endorsed more responsibility onto the women than female participants "(M = 4.9), **F**(1, 504) = 4.35, $p < .04$" (434). Participants "attributed more responsibility to the man when he did not force the woman to have sex (M = 10.3) compared to when he did (M = 9.8), **F**(1, 504) = 6.08, $p < .02$." (p.434) Participants perceived that the women "could have foreseen the consequences" (p. 434) of her behaviour as the nonverbal behaviours increased in sexual	

	(p. 431) and whether she could have foreseen the consequences of her behaviours (adapted for either the no-forced sex condition or the forced-sex condition). Contained nonverbal behaviours previous rated a "low, medium or high" indicators of a females sexual intent. Participants were shown the same vignette and one nonverbal behaviour level (low, medium, high) and provided one of 3 responses: Mary says 'no', Mary slapped John and said "no": or they were given "no information about Mary's response to John's sexual advances" (p. 439). Participants were informed that John stopped his sexual advances or forced sexual intercourse. Participants were asked to rate Mary on her likability, power, competence and desire to have sexual intercourse.	connotation, **F**(2, 500) = 97.01, $p <$ .001. …… Study 2: As the woman's nonverbal behaviours "increased in sexual connotation, from low (M = 2.9), medium (M = 4.4) to high (M = 6.6), participants perceived her to have increased desire for sex" (p.439-440). Men perceived the women to have more desire for sex in the low condition (M = 8.1) compared to women participants (M= 6.4). Men perceived the women to be more flirtatious, "**F**(2, 82) = 6.65, $p <$ .002" (p.440) and promiscuous, "**F**(2, 82) = 3.27, $p <$ .04" (p.440) in the low nonverbal condition compared to women. Women's "perceptions of flirtatiousness were higher than men's" (p. 441) in the high nonverbal condition, $p <$ .05.

			…… <u>Study 2:</u> identical vignettes to Study 1 containing the three levels of nonverbal behaviours. The vignettes did not contain any additional information about the woman's verbal, physical or "no response to sexual advances made by the man" (p. 436) Nor were they informed of whether any sexual intercourse had occurred between the couple. The participants completed an identical questionnaire to that in Study 1 for the no-forced sex condition.			
Newstrom, N. P., Harris, S. M., & Miner, M. H. (2020) Sexual Consent: How Relationships, Gender, and Sexual Self-Disclosure Affect Signalling and	309 participants were recruited through Amazon Mechanical Turk (crowd-sourcing website). All participant's were	How is behaviour displayed by a hypothetical partner indicative of sexual consent in a non-college student sample? How does "sexual	"Participants were asked to indicate if they have been in a relationship for less than one year, one to five years, or greater than five years (p.5). "Participants were asked how they would communicate sexual consent in they were in a hypothetical scenario with an opposite sex partner" (p.5).	Men were "more likely to interpret indirect verbal cues, **F**(1, 239) = 12.35, $p < .001$" (p.6) and "indirect nonverbal cues, **F**(1, 239) = 8.23, $p = .004$" (p.6) as indicative of consent from women. Women did not perceive these same behaviours to be indications of consent from a male partner. Men are more likely to "interpret statements about intoxication as indications of consent for intercourse, **F**(1, 239) = 9.37, $p < .002$" (p.6).	Strengths: The findings support previous research which suggest that there could be a misunderstanding between how men and women communicate and perceive their partners nonverbal behaviours. The sample consisted of a wider age range and in could be inferred that these results might be representative of American adults. Weaknesses: the majority of the participants (79.3%) stated that	Strong

Interpreting Cues for Sexual Consent in a Hypothetical Heterosexual Sexual Situation.	American and the mean age was 34.6 years.	satisfaction and sexual self-disclosure" (p. 3) effect how an individual interprets sexual consent behaviour? How do behaviours portrayed by an individual affect how they view them when another person is presenting them within a hypothetical scenario.	They were next asked their level of agreement using a "7-point Likert scale" (p. 4), of 27 of Hickman and Muehlenhards (1999) list of nonverbal behaviours (originally the list consisted of 33 items) to signal the participants consent. Statements removed included ones with low factor loadings and following guidance from the authors. The same 27 nonverbal items were used to measure how the participant would rate these behaviours to be indicative of another person demonstrating consent to sexual intercourse. Participants who stated that they were "in a relationship were asked to complete the Sexual Self-disclosure scale (SSD, Byers and Demmons, 1999)" (p.5). This measured "how often they communicated their sexual likes and dislikes to their partner" (p.5). Participants in relationships were also required to	"An interaction between relationship satisfaction and sexual self-disclosure was significant for interpreting indirect nonverbal cues, **F**(3, 126) = 2.38, $p < .010$" (p.6). Men perceived their partners use of indirect verbal behaviours to be more indicative of sexual consent, compared to their own use of "indirect verbal behaviour, Wilks' $\lambda = .89$, $F(1, 307) = 42.65$, $p = .001$, $\eta p2 = .12$" (p.6). Women also reported that they would be "more likely to interpret direct nonverbal behaviours as indication of sexual consent, whilst rating a prospective partners use of direct nonverbal behaviour to be less indication of consent, Wilks' $\lambda = .97$, **F**(1, 307) = .13, $p = .003$, $\eta p2 = .0$"3" (p.6),	they were in relationships, therefore the behaviour of single males may differ and consequently produce different results. 72.2% of the participants identified as Caucasian and 32% stated that they earned $50,000 or more per year. It could be suggested that these results may not be generalised to other ethnicities or persons living in America who present from a low-socioeconomic background.

			complete the "Revised Dyadic Adjustment Scale (RDAS), Bushy et al.. 1995)" (p.5) to measure their relationship satisfaction.			
Rerick, P. O., Livingston, T. N., & Davis, D. (2020) Does the horny man think women want him too? Effects of male sexual arousal on perceptions of female sexual willingness.	Study 1: Male only sample, consisting of 201 students enrolled in an American University with a mean age of 20.99. …… … Study 2: 215 male participant's enrolled on an American University course, with a mean age of 20.88.	For both studies it was predicted that arousal levels will result in greater perceptions of sexual intent displayed within a hypothetical woman's behaviour.	Study 1: Participants completed an online study where they were asked to write two fantasies, one which they found arousing and another which they did not. The order in which they wrote their fantasy was counterbalanced and the second fantasy was not used as the dependent variable (i.e., further questions) were asked following completion of writing the first narrative. The second fantasy served as the study's cover story. They were asked to rate 25 behaviours from the "Sexual Intent Perceptions Questionnaire (SIP-Q)" (p. 524) comprising of less sexual intent (e.g.," wears perfume), moderate sexual intent (sits or stands close to him) or strong sexual intent (touch his bare genitals)" (p. 524) using a 3-point Likert scale. They were provided a hypothetical scenario containing a woman	<u>Study 1:</u> the arousal group (*M*= 6.57, *SD*= 2.16) reported significantly higher levels of sexual arousal than the non-aroused group (*M*= 1.2, SD = .43). 81, *SD*= .35): $t(199) = -2.22$, $p = .03$, $d = .31$ (p. 524- 525). The aroused group "perceived higher levels of sexual intent in the women's behaviour (*M*= 1.92) compared to the non-aroused group (*M*= 1)", (p. 525). Results found that the more sexually aroused a male was, the more he perceived the female's behaviour to be indicative of sexual consent. Single-men were found to interpret female sexual consent more than men who stated they were in a relationship. …… <u>Study 2</u>:" Men in the aroused condition were significantly more sexually aroused (Monline = 3.12, SDonline = 1.88; Min-lab = 2.94, SDin-lab = 1.82) than the non-aroused condition (Monline = 2.18, SDonline = 1.48; Min-lab = 1.84, SDin-lab = 1.19)" (p.528).	Strengths: Both studies found that arousal can impact how a male perceives behaviour during sexual interactions. This supports the idea that miscommunication may occur between men and women, and this study suggests that sexual arousal may impact those perceptions and decisions-making processes. This study highlighted the difference between single and non-single males, suggesting that sexual experience may impact how a male behaves and responds to behavioural cues. Weaknesses: both studies used student samples which over-represented white ethnicity, therefore making the results hard to generalise. Sexual arousal may also be impacted by intoxication, and therefore, it would be useful to measure arousal, intoxication and interpretations of consent in the future.	Strong

	depicting these behaviours and were asked as to rate whether these were indicative of sexual consent. The 25 behaviours were tested in a pilot study. Participants provided information about their sexual experiences "(degree to which they are willing to have sex with a person they have just met" (p. 524), how conservative vs. liberal they are regarding sexual behaviour, how experienced they are with dating and the "likelihood they would have sex with a new partner by the first, third or tenth date" (p.524). They were also "asked how many sexual partners they had" and "if they were currently in a relationship" (p. 524). …… Study 2: "Online and in-lab samples" (p.526). Aimed to replicate Study 1 but instead men were asked to "rate images of women as a manipulation of arousal" (p.526).. The participants	In-lab participants reported "higher levels (M= 3.6) of perceptions of sexual intent compared to online participants (M= 3.1, t(205) = 3.45, p .006)" (p. 528). Levels of sexual arousal were "higher in the arousal condition in Study 1 (M= 6.57, SD = 2.16) compared to Study 2 (M= 2.99, SD= 1.84)" (p. 529). Single participants in the" arousal group (M= 5.12, SD= 1.35) interpreted significantly more sexual intent than the non-aroused group (M= 4.54, SD= 1.35)", (p. 529). In both studies, dating experience, number of sexual partners, "willingness to have sex on a first date and attitudes towards causal sex were not related to interpretation of sexual intent (p > .19)" p. 525.	It is unclear whether single men behave differently compared to those in a relationship due to societal expectations on single men? This could be explored further.

	were split into two groups; arousal and non-arousal condition. Participants were asked to complete a sexual experience questionnaire including outlining their current relationship status. They were shown images of women and asked to make judgements about their attire. In the "arousal condition the men viewed 10 pictures of nearly nude women wearing "sexy" lingerie" (p. 527). The pictures were viewed one at a time and he was asked 5 questions about each image, drawing attention to arousing stimuli to increase the "depth of processing of each image" (p. 527). In the "non-aroused condition, the men were shown 10 images of different women dressed in winter closing" (p. 527). They were asked 5 question per image about their opinions of the woman's clothing in the picture.	

			Participants were asked to interpret women's behaviours using the 25 items from the SIP-QS. They were asked to imagine that if a woman engaged in *(insert manipulated behaviour),* then rate how likely it is that she is indicating that she wants to have sex.			
Shafer, A., Ortiz, R. R., Thompson, B., & Huemmer, J. (2018) The role of hypermasculinity, token resistance, rape myth, and assertive sexual consent communication among college men.	Male only sample consisting of 301 participants who are enrolled at an American University with a mean age of 20.59.	"How are hyper-masculinity, token resistance beliefs, rape myth acceptance, and sexual communication assertiveness associated with consent communication, attitudes, intentions and interpretations?" (p. s45).	Participants completed a survey design to measure consent communication. Participants answered questions from a variety to resources; Seven items about masculinity were used from the Masculine Ideology Scale. "Seven adapted items from the Token Resistance to sex Scale were included" (p. s46). "16 items were adapted from the Updated Illinois Rape Myth Acceptance Scale (IRMA)" (p. s46). "Six items were used from Hurlbert index of sexual	"A hierarchical multiple regression found that consent attitudes produced as significant model, **F**(8, 236) = 13.66, $p < .001$". (p. s48). "Token resistance beliefs had a significant negative association on consent attitudes", (p. s48). "Sexual communication assertiveness had a significant positive association" (p. s48) with consent attitudes. "Hypermasculinity and rape myth acceptance did not have a significant relationship with consent attitudes" (p.s48). "Rape myth acceptance had a significant negative association with consent intentions" (p. s48). "Sexual communication assertiveness had a significant positive association with consent intentions" (p. s48).	Strengths: This study attempts to offer guidance for sexual education programmes and specifically suggests that sexual communication and assertiveness need to be incorporated within these programmes for men as well as women, which is where the primary focus has been for many years. Weaknesses: it uses a college student sample therefore generalisability may be limited to other nations and ages.	Moderate

	assertiveness" (p. s46) focusing on communication. "Eight items were adapted from the positive attitude towards establishing consent sub-scale" (p. s46). Five items measuring how likely participants ask for consent and try to stop sexual activity if consent had not been obtained were "adapted from the sexual consent related behaviour intentions scale" (p. s46). Twelve items informed by relevant qualitative literature were included to measure interpretations of "sexual assault in consent scenarios" (p. s46). Five complex scenarios were developed using Yales committee of sexual misconduct to measure consensual behaviour. Participants were also asked to provide information about "fraternity membership, number of sexual partners, and if participants were in monogamous, committed	"Token resistance and rape myth acceptance had a significant negative association with sexual consent interpretation" (p. s48). Sexual communication assertiveness had a significant positive association with sexual consent interpretation. Hypermasculinity and sexual consent interpretation did not produce any significant results for consent scenarios.	

			relationships at the time of the study" (p. s46).			
Willan, V. J., & Pollard, P. (2003) Likelihood of acquaintance rape as a function of males' sexual expectations, disappointment, and adherence to rape-conducive attitudes.	Male and Female sample, consisting of 50 participants of each. The sample are all students who are enrolled into a university course in the United Kingdom. The mean age for the male participants was 23 years and female participants 22 years.	Determine the best single predictor of likelihood of acquaintance rape (LAR). To determine the contribution of situational (misperception of consent) and attitudinal (rape myth acceptance and hostility towards women) determinants of LAR.	Participants completed a paper-questionnaire. They were presented with a "hypothetical sexual encounter between a newly acquainted member of the opposite sex" (p. 641). The vignette was written in a first-person perspective and altered depending on whether it was administered to men or women participants. The scenario contained four separate sequential stages; 1 – the couple met and socialised. 2 – they engaged in "heavy kissing and petting" (p. 641). 3 – there was body and genital touching. 4 – they engaged in mutual masturbation. The participants were split into two conditions; condition one were only provided stages 1 and 2, whereas condition 2 were shown stages 1-4. "The scenario ended with either the female non-	Men rated their self-desire as higher for all behaviours "(i.e. body touching, masturbation and intercourse after the couple first met and after they kissed)" (p. 642) compared to women participants. Men rated the females-desire as significantly higher (except for kissing when the couple first met) compared to women participants. Men also provided significantly higher estimations for female- "likelihood to engage in masturbation and intercourse during stages 1 and 2" (p.642) compared to women participants. Men's perceptions of female desire and female likelihood to engage in intercourse at stage 1 also significantly correlated with LAR. Men who "reported disappointment following non-consent to sexual intercourse did significantly predict LAR (beta = - .55, p <.03)", p.647. "Adherence to HTW was also found to significantly predict LAR (beta = -.49, p < .02" (p. 648)).	Strengths: this research supports previous literature which has found that men overestimate women's sexual intent through their nonverbal behaviour. Weaknesses: the sample recruited university students and therefore it might be difficult to generalise these results to the general population. The sample size was relatively small.	Moderate

	consenting or consenting to further sexual activity and intercourse" (p. 641). The participants were asked to rate their desire to engage in intimate sexual activities, the rate in which scenario "the female indicated her desire to engage (female-desire) and the likelihood of her engaging in each sexual activity (female-likelihood) at the end of each stage" (p. 642). Male participants completed an additional four measures; a three-item scale measuring perceived disappointment, annoyed or happiness at the females non-consent to further sexual activity or intercourse. One-item measuring rape proclivity. The hostility towards women scale, containing 30 items. "Burts (1980) Rape Myth Acceptance scale containing 19-items" (p. 643).	

Data Synthesis

Participant Characteristics

The studies included in the review all recruited using opportunity sampling, and eight of the nine studies used university (college) students. As a result, these samples consisted primarily of participants who are representative of young adults, with mean age ranges supporting this (Hickman & Muehlenhard, 1999, *M*=19.0; Humphreys, 2007, *M*=19.7; King et al., 2021, men *M*= 20.1 and women *M*=19.8; Recick et al., 2020, *M*= 20.99; Shafter et al., 2018, *M*= 20.59, Willan & Pollard, 2003, *M*= 22). Jozkowski et al. (2014) reported 96.2% of their sample were within the 18-23 years old age range. Hickman and Muehenhard (1999) excluded results from participants over the age of 26 in order to produce results that represent the young-adult student population most accurately. Only one study (Newstorm et al., 2020) within the review used different means by which to recruit participants. Newstorm et al. (2020) posted their online survey on Amazon Mechanical Turk, which is a crowdsourcing website used for gathering research and marketing data. Their participants were paid one US dollar for completing the online survey which they received immediately following completion. The mean age of this sample was 34.6 years, and therefore is more representative of people from older age groups compared to the other eight studies. The review will discuss the implications of the age-ranges of participants included within these studies in more detail in subsequent sections.

Research participation incentives were discussed in some of the studies, with King et al. (2021), Jozkowski et al. (2014) and Shafter et al. (2018) offering participants the opportunity to win monetary compensation for their time. Hickman and Muehlenhard (1999) and Humphreys (2007) reported that their samples consisted exclusively of psychology undergraduate students who needed research participation credits in order to progress through

their studies. Incentives such as these may call into question the motivations of participants within these studies: such incentives could impact their commitment to providing accurate, meaningful responses as they feel obligated to partake in order to progress through academia. Hickman and Muehlenhard (1999), Kowalski (1992), Newstorm et al. (2020), and Rerick et al. (2020) attempted to account for this by implementing manipulation and/or accuracy checks in order to remove participants who did not demonstrate sufficient competence or motivation to engage with instructions as required.

Participant ethnicity was reported within seven of the nine studies included in the review. Within all seven of these studies, the samples were predominantly White-Caucasian (Hickman & Muelenhard, 1999, 84.7% were European-American; Jozkowski et al., 2014, 82.6% were White-Caucasian; King et al., 2021, reported 381 men of 422 female participants were White-Caucasian; Newstorm et al., 2020, 72.2% of their sample were White-Caucasian; Shafer et al., 2018 also reported that 68.8% of participants were White- Caucasian; and Rerick et al., 2020 reported 121 of their 201 respondents were White-Caucasian). Participant ethnicity was not reported within Humphreys (2007), Kowalski (1992) or Willan and Pollards (2003) studies. Humphreys (2007) reported that his sample consisted of students who had completed a psychology course at a Canadian university. Similarly, Willan and Pollard (2003) reported that their sample consisted of university students studying in the United Kingdom. Kowalski (1992) did not specify where the students within this study are located, however, all other studies included within the current review consist of participants residing in the United States. The geographical location of the sample will be discussed if further detail later within the report in relation to cultural bias and generalisability.

Methodology

Eight of the nine studies included in the review employed variations of written and/or visual vignettes to portray nonverbal behaviours, or a combination of verbal and nonverbal behaviours, during a heterosexual interaction. Jozkowski et al. (2014) were the only researchers to not use vignettes and instead asked participants to answer open-ended questions about how they would indicate sexual interest and consent with a partner (see Table 3 for additional details). In one of Rerick et al's. (2020) studies, they asked the participants to write about an arousing and non-arousing fantasy, and these were used as the independent variables within study one. In the second study, participants were provided with visual images of women dressed in lingerie or cold-weather clothing in order to increase or neutralise sexual arousal.

Hickman and Mulenhard (1999), Newstorm et al. (2020), Rerick et al. (2020), and Willian and Pollard (2003) worded their written vignettes from a first-person perspective, e.g., *"*you are very sexually attracted to your date" (Hickman & Mulenhard, 1999, p. 263) and asked their participants to answer questions about how they would behave if they were in this situation. Humphreys (2007), King et al. (2021), Kowalski (1992), and Shafer et al. (2018) opted for third person vignettes, where they presented written information about a hypothetical couple and the participants were asked to form opinions or predictions about how these characters may behave.

Hickman and Mulenhard (1999) presented written vignettes detailing consensual sexual activity, with verbal and nonverbal conditions. The verbal condition instructed "you started to make a sexual advance by asking him/her directly, will you have sex with me" (p.246). The nonverbal condition stated "you make a sexual advance by sitting close to him/her, kissing him/her, and then starting to undress him/her" (p. 246). Similarly, Newstorm et al. (2020) provided their participants with a vignette stating "you are very attracted to your

date and would like to have sexual intercourse with him [her]" (p. 457). The participants were then provided with a list of 27 communication cues and were asked to rate whether these behaviours are indicative of consent cues within this hypothetical situation. Likewise, Willan and Pollard (2003) provided their participants with written vignettes containing four stages, presented in the first person *(*e.g., "you are in Tokyo Joes nightclub […], p. 641). The levels of intimacy increase with the stages, including kissing and sexual touching, however, end with the fictional female - Sarah - not providing consent to sexual intercourse and there is no indication that non-consensual intercourse took place. The participants were assigned to different conditions relating to which stages the researchers wanted them to see (see Table 3 for more information) and participants were asked how they perceived Sarah's behaviour to be indicative of her desire to engage in "kissing, body touching, mutual masturbation and sexual intercourse" (Willan & Pollard, p. 642). King et al.'s (2021) participants were instructed to imagine that two college students, a man and woman, went on a date. Next, they were provided with 26 nonverbal behaviours or combinations of nonverbal and verbal behaviours, and asked to rate what degree they "consider it an indication of giving sexual consent later that occasion" (p. N13121).

Humphreys' (2007) study included a written vignette using a hypothetical couple. The participants were assigned to one of three conditions: Kevin and Lisa were on their first date; Kevin and Lisa were celebrating three months of dating; or Kevin and Lisa were celebrating their second wedding anniversary. All three conditions included the statement "Lisa didn't really feel like starting anything sexual, and, besides, she was really enjoying the movie, however, Kevin continuing to sexually touch her" (p. 310). The vignette ended by informing the participants that the couple engaged in sexual intercourse, however, it did not specify if this was consensual. Similarly, Kowalski (1992) provided their participants with a written

vignette depicting a heterosexual couple who attend university and are going on a first date. Within this study the participants' nonverbal behaviours were manipulated to examine which behaviours participants perceived to be indications of sexual intent and consent. Shafter et al. (2018) presented five written vignettes to their participants depicting fictional characters, Susan and Michael. Three of the vignettes depicted non-consensual sexual intercourse: Susan is too intoxicated to consent in one vignette; Susan verbally resists during intercourse; Susan objects before intercourse commences in the other. In one of the vignettes Susan offers no response or physical resistance to intercourse, though, prior indicated verbally and nonverbally that she did not wish to engage. The final vignette depicts Susan and Michael engaging in consensual intercourse in which consent is provided verbally and nonverbally.

Rerick et al. (2020) were the only researchers to use images and ask participants to write about a sexually arousing, or non-arousing situation. They were not instructed that the sexually arousing situation must include consensual sexual activity, however, the authors did not comment that any participants had described a non-consensual encounter. This aspect of the study was included in order to manipulate participants' levels of arousal prior to presenting them with 25 hypothetical behaviours performed by women, to assess perceptions of consent and sexual intent.

Many of the studies used Likert scales ranging from strongly-disagree to strongly-agree to measure the participants' interpretations of verbal and nonverbal behaviours (see Table 3 for details). The numerical response was interpreted in relation to the strength in which that participants either agreed or disagreed with the statement pertaining to perceived sexual consent. All studies within this review discussed implementing Likert scales such as these and measuring behavioural conformity through these quantitative scales.

Narrative Synthesis

The data were synthesised to answer the questions posed within this review. An interpretation of the findings will be examined in the discussion section of this report.

How do men interpret nonverbal behaviours during heterosexual encounters?

Newstorm et al. (2020) analysed the differences between how men and women reported they would behave if they found themselves in the situation portrayed in the vignette. Within their study they found that men are more likely to interpret their partner's indirect nonverbal behaviours (these included statements such as "he/she fondles and touches you sexually" p.457) as indications of a partner consenting to sexual intercourse. However, they also found a significant effect in relation to verbal behaviours (statements including "he/she asks you if you have a condom" p.457). This supports previous findings which are discussed in greater detail in the discussion.

Jozkowski et al. (2014) found that men and women within their study all indicated that they would interpret their partner's sexual intent through their nonverbal behaviour. This suggests both men and women use preconceived ideas about nonverbal behaviour to establish whether their partner has indicated sexual consent through their body language. However, Jozkowski et al. (2014) analysed the results further, and found that men are more likely to assume sexual consent through nonverbal behaviours only, compared to women. Similarly, Willan and Pollard (2003) found that men are more likely to interpret a women's nonverbal behaviour to be indicative of sexual intent, compared to how women rate the same behaviour. Likewise, Humphreys (2007) reported that men stated they would prefer to assume consent rather than verbally ask. These findings suggest that men tend to rely heavily upon nonverbal behaviour to form opinions about sexual intent and form decisions around consent.

Rerick et al. (2020) attempted to measure how sexual arousal impacts perceptions of sexual intent and consent. They found that men who reported feeling sexually aroused were

increasingly likely to overestimate indications of sexual consent when presented with just nonverbal behaviours. This finding suggests that men may be more inclined to act based upon their own feelings and possibly misinterpret behavioural cues displayed by a partner when they are experiencing heightened arousal. Further research would be useful to understand if the same group of men would misperceive sexual consent again when they were non-aroused, in a repeated measured design study.

Jowkoswki et al.'s (2014) study examining how men and women expressed and interpreted consent from a partner (see Table 3 for information) found that men communicated their sexual intent through their nonverbal behaviour more often than women. However, all participants within their study reported that they would more often confirm willingness verbally as opposed to nonverbally. Similarly, within Newstorm at al.'s (2020) study investigating how men perceive communication conveyed by a woman to whom they were sexually attracted, they found that gender differences in how men perceived comments relating to alcohol intoxication. They found that when men made statements such as, "I am really drunk" (p.457), this was perceived as the man indicating sexual intent and consent, whereas for women it was the opposite. Within this research, Rerick at al. (2020) found that men perceived communication cues from women in line with their own sexual desires, i.e., they were more likely to perceive that the women were expressing sexual intent when they were experiencing increased levels of sexual arousal. This differed compared to participants who were in the non-aroused group. This finding suggests that sexual arousal may impact a man's perceptions about sexual intent and consent, resulting in possible unwanted sexual activity. Gender differences such as this could be explained by miscommunication theory in that men appear to be acting upon their own mental constructs about language and its

meaning. This research also aligns with previous findings in the literature showing gender differences in communication styles, relating to consent during sexual interactions.

Shafter et al. (2018) describe hypermasculinity as "a prototype of an exaggerated masculine performance" (p. s45), stating that the "stereotypical man": often exerts "his gender through hostility, domination of women and calloused sexual behaviour" (p. s45). Shafter et al. (2018) examined hypermasculinity within their study, however, their findings differed from previous literature. They found that hypermasculinity was not negatively associated with sexual consent attitudes, therefore, suggesting that men who conform to stronger masculine norms, are not at higher risk of misperceiving sexual intent.

Therefore, the studies within this review suggest that men use internal and external constructs to inform decisions about consent. They are at risk of overestimating a partner's sexual interest based upon interpretations they make around nonverbal behaviours (Humphreys, 2007; Jozkowski et al., 2014; Willan & Pollard, 2003). However, they may also be influenced by internal states of sexual arousal (Rerick et al., 2020), but are not influenced by conformity to hypermasculinity when forming decisions about nonverbal communication (Shafer et al., 2018).

What are the specific behaviours that men identify as being used by a woman to indicate her intention to progress with sexual activity?

Kowalski (1992) attempted to address this question within their research in a number of ways. Kowalski initially completed a pilot study (see Table 3 for more details) whereby specific nonverbal behaviours were categorised as indicating low, medium or high levels of sexual intent portrayed by a woman. "High" behaviours consisted of the female character (Mary) taking off her blouse, touching the male's genitals, and undressing him; medium behaviours were that "she offers to give him a back rub, places her hand on his thigh and

passionately kisses him" (Kowalski, 1992, p. 432); and "low" behaviours were that "she holds his hand, dances with him and maintains eye contact" (p. 432). These nonverbal behaviour categories were included within their study and implemented within written third person vignettes. The participants were instructed to rate how willing Mary was to engage in consensual sexual intercourse. Kowalski (1992) found that men perceived all of the behaviours in each category to be indicative of sexual intent. However, women suggested that the low category demonstrated flirting and did not evidence that Mary wanted to engage in sexual intercourse with the man.

King et al. (2021) also found that men were more likely to identify consent when presented with a single verbal or nonverbal behaviour compared to women. These behaviours were identified as: she asked him to go out; while they were together the man paid; they went to the man's apartment; she smiled at him; she accepted an alcoholic drink from him; she has been drinking and seems tipsy; they kissed using tongues; they have been dancing closely using grinding; and she did not move away. However, female participants began to increase ratings of sexual intent when they were presented with combinations of two or three of the above behaviours. King et al. (2021) found that men significantly rated perceptions of sexual intent as higher across all three levels (presented with one, two or three behaviours) compared to women. These findings suggest that there may be differences in how men and women interpret sexual intent and consent.

Nonverbal sexual refusal has been explored within the wider literature and gender differences have been identified in how men perceive a woman's refusal (Gunham, 2016; Muelenhard, 1988). Jozkowski et al. (2014) found that women were more likely to display non-responsive behaviours during sexual activity as indicators of sexual consent, compared to men. Women reported "I wouldn't say no" and "I would just let it (sexual intercourse)

happen" (p. 910) whereas men were found to use both verbal and nonverbal behaviours to obtain consent (e.g., sexually touching their partner whilst verbally expressing a desire to have sexual intercourse with them). Men have been found to interpret a lack of response, or resistance, as indicators of sexual consent (Beres, 2007; Hickman 1999). There has been discussion in the literature about the meaning of a lack of response, with some research suggesting that women are indicating their non-consent within these scenarios. However, Jozkowski et al. (2014) have found non-response to be a nonverbal behaviour displayed by women when they are consenting to sexual intercourse. This finding raises the question about whether nonverbal behaviours consistently mean the same thing and, therefore, can men be held accountable for misperceiving nonverbal behaviour if they have different connotations, based on individual differences?

Shafer et al. (2018) offer potential explanations about why some men may perceive nonverbal behaviours differently compared to others. They examined the impact that adherence to token resistant attitudes and conformity to hypermasculinity can have on a man's behaviour during sexual interactions. They found that participants who scored highly for token resistance beliefs, were less likely to adopt positive attitudes supporting sexual consent communication. Instead, these participants presented with destructive attitudes and interpretations of sexual communication, for example, using coercion or physical force to persist with sexual intercourse. This finding suggests that men who hold these beliefs are more likely to act upon them and display unhealthy attitudes toward obtaining consent.

Can results from studies implementing vignette designs be generalised to the general population?; a discussion of external validity.

External validity refers to the extent to which behaviour identified within studies is a true representation of behaviour within the population (Campbell, 1957). Hickman and

Muelenhard (1999) asked participants within their study whether or not they could imagine themselves in the scenario depicted. Participants who reported that they could not were not included within the results in order to increase the study's external validity. External validity is an important factor to measure within consent studies, particularly those which include vignettes. Within this review, Jozkowski et al. (2014), Newstorm et al. (2020), Rerick et al. (2020), and Willian and Pollard (2003) all included first person vignettes, however, only Hickman and Muelenhard (1999) asked the participants whether they could envision themselves in similar circumstances. It could be argued that studies which measured sexual communication as well as interpretations are seeking to increase the external validity of the findings by asking participants whether they would engage in this type of sexual communication in real life (Humphreys 2007; Willian & Pollard, 2003). Humphreys (2007) found that participants often rated how they interpreted behaviours based on what they mean for them and therefore applied the consensus bias to predicting how others may behave.

Humphreys (2007), King et al. (2021), Kowalski (1992), and Shafer et al. (2018) all opted for third person vignettes and asked the participants to interpret the behaviour of fictional characters. It could be implied that studies that implemented third person vignettes to measure men's consent behaviours and interpretations may lack external validity as a participant may respond based on how they believe the person within the vignette would respond, as opposed to how the participant himself would.

All but one of the studies in this review asked the participants to respond to statements about sexual communication and intent after viewing a vignette. Willan and Pollard (2003) were the only researchers who provided snippets of information to participants at varying intervals during the study, and measured their responses at different points. This methodological approach may increase external validity as it attempts to capture responses of

participants as they received new information. Therefore, these responses may include emotional reactions that the participants may have felt immediately after being provided a specific piece of information. It could be argued that these emotional reactions are more representative of how a person may respond in real life, and therefore, studies that employ these strategies have higher internal validity than studies that do not. Consequently, studies that use vignette designs may need to be creative in how the display the information provided to participants in order to increase generalisability and produce higher levels of external validity.

Is the current literature representative of the general population of men? Can it be applied to men across countries, ethnicities, socioeconomic status and ages?

The studies included in the review primarily recruited participants who were students at a university. Consequently, the age range of the participants predominately reflected young adults, ranging from 18-25 years. Newman et al. (2020) were the only researchers to include a non-student sample and their mean age was recorded as 34.6. This raises concerns about the generalisability of these studies to the wider population. Some research has indicated that university students are not representative of young adults as a whole, with Williams et al. (2016) finding that students tend to be from higher socioeconomic backgrounds and therefore students do not accurately represent the general population.

When considering the consent literature as a whole, a large majority of the studies rely on student samples. One reason for this has been to empirically inform rape-prevention programmes taught on university campuses, with the aim of reducing sexual violence among students. Some studies have found that rape-conductive behaviour is heightened amongst adults of university age and these behaviours and values can be acquired and reinforced by attending university (Vechiu, 2019). Therefore, research investigating student samples can be

beneficial in attempting to understand what is underpinning these beliefs and values. However, if university students are deemed to be non-representative of the general population, this research may lack external validity and generalisability to others within society. As a result, little is known about consent attitudes of wider age ranges. Newstorm et al. (2020) were the only researchers to collect data that significantly reflected an older age range. This study found similarities to findings within this review as well as the wider literature. This may suggest that studies that include student only samples could be representative of behaviours of different age ranges; however, this needs to be examined further.

All of the studies in this review reported that the largest proportion of their sample identified as White-Caucasian. This suggests that views of different ethnicities are not being fully captured within the literature, and therefore, it is unknown whether the current findings represent the behaviour and perceptions of these populations. In their review, Willis et al. (2019) reported that bivariates associating sexual consent and race/ethnicity were weak and recommended further exploration of nuances in the other ethnicities to broaden the literature.

It can also be seen that many of the studies within this review and the wider literature are generated in the United States and therefore include participants who are living within this society. Humphreys (2007) recruited students residing within Canada and Willan and Pollard (2003) collated results of students living in the United Kingdom. Other than the location differing, similar demographic characteristics were reported for these studies in comparison to the ones completed in the United States (majority were White young adults). It could be inferred that the studies within this review are representative of the Western student population and therefore could be generalised to this demographic. However, societal differences, such as how an individual's lived experience may differ depending on the country

in which they reside needs further integral investigation to establish whether there are significant differences between countries and what impact this may have on perceptions of consent.

Discussion

The current review has examined the consent literature with a particular focus on studies that have measured responses to nonverbal behaviour during heterosexual encounters. The review posed the question as to how men interpret nonverbal behaviour during these encounters and, specifically, which nonverbal behaviours they consider to be indicative of sexual willingness from a partner. It also investigated the use of vignette methodology, which is the most common methodological design in this research area, and discusses the generalisability of the current consent literature findings to the wider population.

The results of Hickman and Muelenhard's (1999) study showed that men and women communicate consent to sexual intercourse in differing ways; miscommunication appears to underpin some differences in interpretations of sexual intent and consent. Similarly, Rerick et al. (2020) found that men are more likely to misperceive nonverbal behaviours when sexually aroused, suggesting that there is room for misunderstandings when presented with contextual variables.

The hyper-perceptive bias (Wegner & Abbey, 2016) attempts to explain individuals' differences in hypermasculinity, narcissism, "impersonal sexual orientation, alcohol use and impulsive sensation seeking as a propensity to overestimate sexual interest" (p. 18). However, O'Bryne (2006) found that men do not misunderstand verbal or nonverbal behaviours, and in fact employ deceptive tactics to fulfil their sexual desires. This was supported by Jokwoski and Peterson's (2013) study that found men admitted using sexual tactics to engage in anal sex (i.e., knowingly commencing the act and saying that it was a mistake to their female

partner). Willian and Pollard (2003) also found men described feeling frustrated when the female in their vignette declined sexual intercourse. These feelings of frustration were found to increase likelihood to engage in acquaintance rape scores. These findings suggest that men may act on their own desires and ignore behavioural cues displayed by their partner. Therefore, it appears that the literature is mixed in relation to Tannen's (1992) miscommunication theory's rationalisation of sexual aggression, with some researchers finding support for this notion and others finding this to be untrue.

However, the miscommunication theory has been explored within studies where communication is examined between individuals who are in a relationship. Research has suggested that during relationships, communication styles become familiar and therefore nonverbal behaviours can be more accurately interpreted (O'Bryne 2006; O'Bryne 2008). However, Newstorm et al. (2020) suggests that relationship experiences can impact how consent is negotiated. They found that participants who reported they were in unstable relationships displayed more nonverbal behaviours during sexual interactions and these may not necessarily demonstrate a shared understanding of their partners consent. Likewise, Walker (1997) reported that when women display a lack of resistance/refusal, men in relationships perceive this to be indicators of sexual consent, when it could in fact be fear of conflict (Katz, 2009). However, Oritz (2019) found that women are more likely to use affirmative consent with partners they know, inferring that clear verbal consent might be negotiated differently between persons who have had previous sexual encounters, compared to new partners. Similar results pertaining to affirmative consent have been found within the broader literatures (Gray et al., 2020; Hoxmeier, 2019) resulting in rape-prevention programmes incorporating teaching for women on how to be less ambiguous and clearly state their consent or refusal. However, Jozwaksi et al. (2014) found that men and women are able

to define consent similarly, which would suggest that miscommunication is not the key issue in a sexual assault taking place. This finding supports the commonly held opinion within the field that a female victim of a sexual assault should not be criticised for not being clear enough in her communication; some men will continue with unwanted sexual activity despite the clarity of verbal and nonverbal cues.

Research investigating consent behaviours and token resistance have found that some men will persist with sexual intercourse, even though a woman has declined, because of the attitudes they hold in relation to token resistance. Hickman and Muelenhard (1991) found support for traditional sexual scripts (TSS) as their study found that more men considered it to be a man's role to initiate sexual activity with partners, as opposed to woman's role. Willis et al.'s (2020) study investigating sexual scripts portrayed within pornography demonstrates that men are still presented as dominant initiators, and women are submissive and passive. It is of interest that Hickman and Muelehards's (1999) finding pertaining to attitudes about token resistance and TSS remains prevalent over twenty years later.

Shafter et al. (2018) also found that men who present with token resistance beliefs are more likely to endorse negative views about consent. It would have been of interest if this had been explored further within their study in order to identify what the impact of these negative views might have on their sexual interactions. Shafer et al. (2018) also found that hypermasculinity was not associated with negative views about sexual consent. Masculinity has been described as a multidimensional concept and although some elements of hypermasculinity have been directly associated with sexual violence (Bleecker at al., 2005; Boswell et al., 1996) other research has attempted to explore whether some elements may act as a protective factor towards women (Corprew et al., 2014a; Corprew et al., 2014b). Shafter et al.'s (2018) finding around hypermasculinity not being associated with negative views

around consent, may support changes in how hypermasculinity is understood in sexual consent behaviours, which differs from the previous literature.

Jozkowski et al. (2014) found that participants interpreted nonverbal behaviours more than verbal behaviours as indicators from their partner of sexual consent. This finding seems to align with previous literature which has found that nonverbal behaviours are described as indicators of sexual intent (Edgar & Fitzpatrickm 1993; Kowalski, 1992; Lim & Roloff, 1999). King et al. (2021) reported that male participants rated all nonverbal behaviours included within their study and indicative of sexual intent. Hickman and Muelenard (1999), Kowalski (1992), Humphreys (2007), and Jozkowski et al. (2014) all reported that men tended to overestimate sexual intent through both verbal and nonverbal behaviours. These findings support previous studies which have identified that men can overestimate the extent to which a woman is providing cues which are indicative of sexual interest (Abbey et al., 1998; Haselton, 2003; Malamuth & Brown, 1994).

In relation to how nonverbal behaviour is interpreted during sexual interactions; some common themes have been identified. All of the studies in this review found that men interpret nonverbal behaviour to be indications of sexual intent from a partner. Jozwaksi et al. (2014) found that both men and woman participants preferred to use verbal communication to obtain sexual consent from their partner. This finding differs from previous literature which has found that direct verbal behaviour (such as, do you want to have sex) is awkward and can ruin the moment (Cameron, 1994). In Hickman and Muelenhard's (1999) study, men reported that they are more likely to express their non-consent through nonverbal behaviours such as appearing not interested, whereas King et al. (2021) found that women are more likely to interpret sexual consent when provided with a combination of verbal and nonverbal behaviours. Gender differences have been found in how men and women use and interpret

nonverbal behaviours within this review which is consistent with the previous literature (Harris & Weiss, 1995; Morgan et al., 2006; Semonsky & Rosenfield, 1994).

Strengths and Weaknesses of the Systematic Literature Review

A comprehensive search of databases was completed prior to commencing the literature search for this review in order to establish whether there have been any previous reviews relating to issues concerning nonverbal consent. Muelenhard et al. (2016) produced an empirical review of consent literature, however, focused exclusively on university sample studies and did not focus specifically on nonverbal communication. Thus, no reviews were found including all ages and specifically nonverbal behaviour during sexual interactions, suggesting that this is the first review on this topic. When comprising the search terms, a general search of the electronic library was completed to establish consistent terminology used when describing consent. A thesaurus was also referenced in order to ensure the search terms were representative of the intended literature and gaps could be accounted for. In addition, discussions regarding search terms and strategy took place with an academic supervisor who is well published in the field. As such, it is felt that the search terms and strategy were such that all relevant articles for inclusion were identified.

A standardised quality assessment tool was used to review the shortlisted studies; this tool is empirically supported (Deeks et al., 2003). The review included studies which used similar quantitative methodologies in order to synthesise findings effectively. The focus was on findings from studies with male participants in order to draw more robust conclusions about this population, however, it may have been beneficial to review female only studies against the male only samples to assess whether differences are found with single gender experiments; it is suggested that this could be done as a separate review in the future.

All of the studies within this review adopted a self-report methodology. There are benefits to this, such as participants feeling at ease to answer freely and honestly (Murphy et al., 2008); thereby increasing internal validity. However, self-report methodology requires the participants to demonstrate insight into their thoughts, feelings and behaviours, which for some participants may be difficult and produce inaccurate responses. In addition, given the somewhat taboo/sensitive nature of the topic, participants may feel inclined to answer in a socially desirable way, i.e., wishing others to believe that they would be very mindful of the issue of consent (Jowwaski et al. 2014). The studies within this review do not measure social desirability, therefore there has been little discussion as to how this may have impacted on the results.

As previously discussed, all of the studies used vignettes either presented in a first or third-person format. The studies which incorporated third-person vignettes may not have captured the behaviours that these participants may themselves engage in, and instead measured stereotypical values they hold about the characters within the vignettes. Research focusing on consent is somewhat constricted to either relying on vignette methodologies which ask participants to predict how they might behave during hypothetical scenarios, or is introspective and asks participants to share how they behaved in the past. Therefore, it is difficult for researchers to precisely examine how individuals behave in the moment and what drives these thoughts and decision-processes. Willan and Pollard (2003) attempted to do this through their moment-by-moment design, however, it is difficult to replicate real-life experiences within written vignette designs as they not include environmental factors that could trigger conscious or unconscious decision-making processes.

Within the wider literature, qualitative studies have attempted to offer insights into different ways in which men interpret consent in previous sexual encounters (O'Bryne, 2006;

O'Byrne, 2008). However, these designs rely on participants being honest and able to recall their behaviour, thoughts and emotions in that given moment. There are also increased prospects of additional variables such as social desirability impacting on how participants respond during interviews. Jozkoswki et al. (2014) attempted to create a design which allowed participants to discuss their consent behaviours through the implementation of open-ended questions. This allowed for anonymity which can be incorporated into survey designs as well as giving the participants freedom to share their experiences in more detail. However, questions can still be raised about the effectiveness of asking participants to recall past events, as discussed above. Therefore, consent remains a challenging subject to measure.

Implications for practice and future research

Drawing on the limitations outlined above and in the main body of the review, it is felt that the field would benefit from further research on how consent is communicated across different ages, ethnicities and socioeconomic status. Additional understanding into how participants' relationship histories and personal experiences inform their interpretations of consent would also be valuable as this has not been explored within the studies in this review. This could be achieved through the use of subjective methodologies, such as Willan and Pollard's (2003) moment-by-moment scenario; such methods may better capture how a person may behave in a real-life situation. Greater validity may also be achieved through the use of interactive designs as opposed to designs which rely on commenting on behaviour that has already happened. When producing research which focuses on men in particular, additional information gathering regarding their relationship history, sexual learning, and factors which may physiologically impact their perceptions (e.g., arousal), will help to better inform understanding about sexual behaviour. Hypermasculinity, token resistance attitudes,

and gender-specific behaviour may differ across countries; therefore, it would be helpful to increase knowledge regarding influences relating to consent from a diverse male perspective.

The review highlights the need for nonverbal behaviours to be considered and included when developing educational programmes around sexual consent. Nonverbal communication has been found to have a key role in determining a partner's intentions to engage in sexual activity. Therefore, the gravity of misinterpreting these subtle behavioural nuances could result in significant harm to others.

Furthermore, it may be beneficial for clinicians who work therapeutically with individuals who have committed a sexual offence, to help them reflect on how sexual arousal may influence decision-making processes. The research, although in its infancy, suggests that a person in a sexually aroused state may be more at risk of misinterpreting others sexual interest than the same person in a non-aroused state (Rerick et al., 2020). A therapist could help an individual identify subtle physiological responses to sexual arousal and unpick the thoughts and behaviours through a Cognitive Behaviour Therapy (CBT) model. This therapeutic approach is used within the Keep Safe programme for young people with intellectual disabilities who display harmful sexual behaviour (Malovic et al., 2018). A similar focus during individual therapy may help a person understand their triggers, thoughts, and interpretations of others behaviour during different states of arousal.

Furthermore, it may also be beneficial to include learning around interpreting nonverbal behaviours within interventions for sexual offenders. Although it must be stressed that some sexual offenders display sexual aggression knowingly to victims; better understanding of sexual behaviours, signals, and communication cues could form a crucial part of rehabilitation for people with sexual convictions that were the result of misunderstandings regarding consent.

CHAPTER THREE

RESEARCH PROJECT

THE IMPACT OF NONVERBAL BEHAVIOURS ON MALE PERCEPTIONS OF SEXUAL CONSENT

Abstract

This study draws upon the miscommunication theory, as proposed by Tannen (1992), to examine how males perceive sexual consent through the use of nonverbal behaviours. Tannen's theory states that men and women communicate differently due to their childhood experiences and societal norms, which has resulted in differing communication styles that contribute to sexual violence. Previous research has found gender differences in how males and females communicate sexual intentions (Abbey, 1991; Osman, 2003) and this miscommunication has been associated with the occurrence of sexual assault incidents. This chapter begins by critically reviewing the literature regarding men and women's verbal and nonverbal communication in relation to societal and individual norms, including the notion of token resistance, rape myth acceptance, and hypermasculinity.

To date, there has been limited research focusing solely on nonverbal cues to consent in men. Participants (*N*= 888 men) in the current study were shown a vignette and video clip depicting an interaction between a male and female who are on a first date. Kowalski's (1992) low and moderate ratings of nonverbal behaviours was used as a measure of perceived nonverbal consent. A between-groups design was implemented and participants were randomly assigned to either the low or moderate nonverbal behaviours group and shown a video clip containing these behaviours. Participants were asked to evaluate whether they believed the female was likely to consensually engage in further sexual activity.

Perceptions of willingness to engage in sexual intercourse were examined in relation to hypermasculinity through Parent and Modari's (2009) Conformity to Masculine Norms Inventory– 46, to test whether conformity to masculine norms impacts perceptions of consent. Results showed that males with higher levels of conformity to masculine norms were more likely to perceive nonverbal behaviours to be indicative of sexual willingness. Similarly, men

who self-reported higher levels of sexual experience perceived nonverbal behaviours to be indicative of a date scenario resulting in sexual intercourse. However, age was not found to impact decisions formed about likelihood of sexual intercourse. The findings are discussed in relation to the literature on sexual hypermasculinity and misinterpretations of sexual consent.

Introduction

As discussed in chapters one and two, sexual violence remains prevalent around the world. In the US, a country in which the antecedents of rape and sexual assault have been studied most widely, twenty percent of women have experienced attempted or completed rape in their life time (Smith et al., 2018). It is estimated that 63% of rapes are not reported to the police (Rennison, 2002) with rape being considered as one of the most under-reported crimes in America. Statistics such as these demonstrate that sexual violence remains rife within modern society and affects many lives. Researchers have attempted to obtain insight and develop possible explanations as to why sexual violence remains so prevalent. One area that has attracted much attention is Tannen's (1992) miscommunication theory.

Miscommunication Theory

As introduced in previous chapters, Tannen's (1992) Miscommunication theory posits that gender differences stem from childhood experiences, with "boys and girls grow [ing] up in different worlds." (p. 9). Research on miscommunication theory identifies communication differences between men and women and offers insight into how these differences impact on sexual relations. There is a wealth of research finding differences in how men and women negotiate sexual activity (e.g., gender differences in sexual scripts, token resistance, rape myth acceptance – as outlined in previous chapters) and how this impacts a person's perception of sexual consent. Some studies have found that females communicate in an indirect, ambiguous ways (Muehlenhard, 1988), and conclude that this can lead to males misinterpreting sexual signals. Cawford (1995) argues that it is the woman's responsibility to improve their communication skills; this appears to have become a theme within psychoeducation prevention programmes focusing of sexual interactions (Beres, 2014). Beres (2010) argues that it is not a woman's poor communication skills that result in unwanted

sexual contact, it is men who are not interpreting these situations accurately and who maintain beliefs which support their desire to continue with a sexual interaction.

Hypermasculinity and Consent

Hypermasculinity has been explored by Mermen and Kohlman (2007), who state that heterosexual conquest is deemed an important element of traditional masculinity. Hypermasculine attitudes can extend beyond sexual interactions and also form gender role beliefs which may encourage traditional gender roles within society, such as males being viewed as the provider and females raising children. Shafter et al. (2018) suggest that hypermasculine males may misinterpret or ignore communication signals from their partner, and these misinterpretations or decision to ignore signals will be particularly heightened if the signals are in opposition to their own desires. This suggests that hypermasculine males are more prone to misinterpret sexual communication based upon their own beliefs and wants.

Literature has shown that hypermasculinity, token resistance, and rape myth acceptance are linked with negative sexual attitudes and behaviours (Santos-Iglesias et al., 2014) and victim blaming justifications (Suarez & Gadall, 2010). Furthermore, other factors associated with adverse attitudes towards consent and increased risk of displaying sexual violence include: cognitions that justify sexual aggression (Hall et al., 1991); personality difficulties (Zeigler-Hill et al., 2013); deficits in emotional regulation (Pickett et al., 2016); poor social functioning (Ward & Beech, 2006); and difficulties with intimacy (Fisher et al., 1999). In addition, research examining university students' proclivity to display sexual violence has found that alcohol consumption and fraternity membership can significantly increase risk of this behaviour emerging (Abbey, 2002; Chan, 2021; Cvek & Junakovic, 2020; Murnen & Kolhman, 2007).

Sexual Communication and Rape

Sexual coercion is defined by Skelton (1982) as forced sexual contact which *may* result in non-consensual sex. Additionally, Fisher et al. (2007) found nonforceful verbal communication (e.g., reasoning, negotiating, pleading, and telling the perpetrator to stop) were ineffective at preventing the female from being raped, compared with forceful verbal communication (e.g., screaming, yelling, threatening the offender). Misinterpretations of nonforceful verbal communication could be explained by adherence to token resistance beliefs (Muehlenhard et al., 1998; O'Sullivan & Allgeier, 1994; Spreacher et al., 1994), i.e., men who believe that women display token resistance prior to engaging in sexual intercourse, may not believe that a woman really means "stop" in the build-up to sexual intercourse. However, this finding should be viewed with caution as other researchers (e.g., Beres, 2014, as discussed previously), state that some men will continue to pursue sexual intercourse despite perceiving and understanding a women's refusal. Osman (2003) analysed male understanding of consent through the use of sexual scenarios. He found that male participants rated 'yes' and 'silent' responses as the female giving consent and therefore would proceed with sexual activity. This finding can be linked with literature demonstrating that males tend to overestimate female sexual interest in a range of circumstances (Abbey, 1982; DeSouza & Hutz, 1996; Fisher & Walters, 2003; Henningsen et al., 2006).

Muehlendard (1988) suggests males and females often communicate indirectly (non-verbally) when initiating sexual relationships and, as a result, they interpret these behaviours differently. However, Beres (2008) suggests that literature on sexual miscommunication is based upon heteronormative assumptions about sexual behaviour and consequently men are often found to be misinterpreting women's cues, and women are often seen to be responding in an ambiguous way.

Gender Similarities in Sexual Communication

Research looking specifically at communication used by men and women during sexual encounters has found similarities and differences as to what individuals perceive to be consent to sexual interactions. Direct communication (also referred to as *explicit consent* within the literature) refers to verbal communication whereby a woman is clear in accepting or declining sexual advances. Indirect communication (also referred to as *inexplicit consent*) includes non-verbal behaviour and situational cues (Byers & Heinlien, 1989) which may influence a person's perception of the other giving consent for sexual activity.

Similarities have been found within the literature in respect to verbal communication and how this is understood. Studies employing clear, verbal cues relating to consent have found that men and women have a similar understanding of what this means; such verbal cues consequently reduce the likelihood of rape (Osman, 2003). Similarly, Kitzinger and Firth (1999) report that women express their refusal in consistent and conversational ways, and men are able to recognise and understand these refusals (O'Bryne et al., 2006; O'Bryne et al., 2008). This research suggests that miscommunication is not always an issue in cases of sexual violence; males and females have a shared understanding of direct verbal sexual refusal.

Gender Differences in Sexual Communication

The above notwithstanding, much of the literature has found that people use nonverbal communication more frequently than verbal (Brady et al., 2018; Beres, 2014; Jozkowski et al., 2014) and this could perhaps result in miscommunications. Abbey (1991) states that nonverbal cues may reflect a range of meanings and consequently misunderstandings may occur. For example, as discussed in chapters one and two, literature indicated that there are differences in the way silence (i.e., a method of nonverbal communication) is perceived by men and women within a sexual activity (Byers & Lewis, 1988; Murnen et al., 1989; Osman,

2003). This difference in how silence is interpreted by men and women demonstrates how misinterpretation could result in harmful sexual behaviour.

Gender differences in sexual communication were investigated by Jozkowski (2011) and found that males were more likely to communicate their sexual consent through nonverbal behaviours, whereas females communicated their sexual consent verbally. However, gender similarities were also found, with Jozkowski (2011) finding that both males and females were more likely to interpret their partner's sexual consent based upon nonverbal cues, such as kissing, eye contact and their partner's body movements. This research suggests that men provide and perceive consent predominantly through nonverbal behaviours, whereas females are more likely to use verbal cues to provide their consent. Therefore, this supports the assumption that men and women have a greater mutual understanding of verbal cues, however, nonverbal behaviours may result in miscommunication.

Nonverbal Behaviours and Perceiving Consent

Nonverbal communication plays a large role in sexual interaction. Hickman and Muehenhard (1999) found that men and women display consent by responding physically to one another's nonverbal cues rather than using direct verbal communication. Byers and Heinein (1989) proposed the use of nonverbal sequences that are often initiated through kissing and touching and proceed into consensual sexual activity. Muehlenhard and Schrag (1991) observed that individuals anticipate sexual activity to advance in a sequential fashion starting with kissing, petting, and then intercourse (Lim & Roloff., 1991, p. 5). During these behavioural sequences, men and women have stated that direct verbal communication of consent is not necessarily required; this finding has been supported by Lin and Rollof (1999) and Humphreys (2007).

Further to this, Beres (2014) completed interviews with young adults and found that these participants measure consent in varying ways depending on how their partner behaves. Within the study, it was found that men constitute events (such as going home with each other) and actions (such as a woman moving her body to allow the male to remove her underwear) as indications of consent. However, as mentioned above, male sexual arousal research has found that single males were significantly more likely to misinterpret a female's sexual willingness the more sexually aroused they were (Rerick et al., 2020). Linking this to Shafer et al.'s (2018) research which found males with increased hypermasculinity were more likely to ignore signals of refusal from their partner if it went against their own desires, it could be argued that further exploration of masculinity in single men during casual sexual encounters is needed. Interestingly, Rerick et al. (2020) found statistically significant associations between perceptions of women's sexual willingness and indications of consent only for single men. Therefore, further thought is required regarding why males who are not in relationships may perceive female sexual willingness differently compared to males who are in a relationship. One consideration could be that there are different behavioural expectations (i.e., heteronormative scripts) placed on single males by society.

Television and film have been found to be a means by which adolescents have educated themselves on dating and relationships (Wood et al., 2002). As mentioned in chapter one, research focusing on television and film found that audiences are frequently exposed to consent communicated through a range of nonverbal behaviours. This exposure could explain why direct verbal consent has been described as awkward and uncomfortable by participants within some research (Beres, 2010; Foubert et al., 2006). If nonverbal cues are being favoured over verbal behaviours to indicate consent, this could result in miscommunication due to the gender differences in the interpretation/perception of nonverbal behaviours. There is also the

possibility that inaccurate values are being portrayed within mainstream television and film relating to nonverbal sexual behaviours, thereby reinforcing undesired actions, which could result in sexual violence.

As discussed in chapter two, much of the previous consent literature has utilised student samples and attempted to understand how consent is determined and acted upon within this population. Research has found differences in consent attitudes and communication across student samples. One of the key areas explored is regarding an individual's reported level of sexual experience - this has been found to act as a protective (Delle et al., 2019) and risk factor (Vechiu, 2019) for displaying negative consent attitudes. Delle et al. (2019) found that male students who considered themselves to be sexually experienced were more likely than those who did not to correctly decipher behavioural nuances, making them less likely to continue with non-consensual sexual activity. However, Babin (2013) found that male students who describe themselves as sexually experienced are less likely to use verbal communication to confirm consent. Additionally, it has been found that men who describe themselves as sexually experienced are more likely to assume consent is present within long term relationships (Humphreys, 2007), compared with men who rate their sexual experience as lower. However, caution must be taken when using self-report measures of sexual experience; interestingly, hypermasculine men are more likely to describe themselves as "sexually experienced" compared with men with lower adherence to hypermasculinity (Corprew & Mitchell, 2013; Vechiu, 2019). Therefore, the role of sexual experience in relation to consent attitudes and beliefs is unclear, and it is of note that much of the previous literature has utilised student samples, so any findings cannot be fully generalised to older male populations.

Chapter two introduced Kowalski's (1992) devised list of indirect nonverbal behaviours that young adults rated as low (e.g., holds his hand), medium (e.g., places hand on thigh), or high (e.g., removes her blouse) indicators of sexual interest from a female. Kowalski (1992) found there to be no difference between male and female perceptions of sexual interest in the high nonverbal behaviours group; however, men and women differed in their interpretations of the nonverbal behaviour's indicative of low sexual interest. Male participants deemed the behaviours within the low levels category to be flirtatious and demonstrative of sexual interest, whereas females suggested these were merely friendly behaviours.

The literature on consent has emphasised the important role that nonverbal behaviour plays when males and females communicate regarding their willingness to engage in sexual activities. Gender differences have been highlighted regarding how these nonverbal behaviours are understood and the meaning/value placed upon them. Miscommunication theory has remained a key explanation in the literature, positing that communication styles differ owing to early gender differences in childhood experiences, which in turn, can lead to misunderstandings, including during sexual interactions. There has been a wealth of research into beliefs and actions portrayed by males, such as utilisation of sexual scripts, the acceptance of rape myths, and token resistance. The role of masculinity has been studied in combination with these theoretical ideas to establish differences in male behaviour. Much of the literature has asked participants to provide an opinion of scenarios portrayed in vignettes to ascertain attitudes, beliefs, and expectations held by men and women corresponding to sexual consent.

The use of videos in consent research has been limited, however, there have been more recent studies that have incorporated this as part of the research design. Aubery et al.

(2022) incorporated a 7-minute scene from a popular television programme within their study and measured responses to nonverbal and verbal communication with consent attitudes. They did not measure participants' physical arousal to the video content, however, they measured their emotional engagement with the clip using a Likert scale. Emotional engagement questions included statements such as "the story from the clip affected me emotionally". Aubery et al. (2022) found that emotional engagement did not differ between participants who were presented with verbal or nonverbal communication about consent and discuss this finding in relation to how media influences attitudes displayed by consumers. Similarly, Rowe and Jill's (2020) research measuring the impact of sexual consent media campaigns included vignettes and video designs. They found that how participants' interpreted the character's pleasure (sexual arousal) during the scene was associated to decisions they formed about whether it was consensual or not, but did not measure the participants' levels of arousal to the visual and written stimuli. The use of videos in research which aims to stimulate arousal and impact decision making around consent, is still a developing research area. However, video footage (both professional and amateur) is widely used in psychological research and it is noted that the perceived realism of the video plays an important role in eliciting emotional states (i.e., the more real it seems to the viewer, the more it will engage their emotions) (Zaneuskaya, 2021). For the purposes of the current study, despite actors being used to create the footage (with a view to the scenario appearing to be realistic), it would be clear to the viewer that the footage is not real-life. This was purposeful as the intent was to illustrate the specific scenario following on from the written in the vignette. As such the issue of arousal was not considered to be key to the design although, as found in previous studies, any emotional arousal experienced may have impacted on the results. This is noted in the limitations section below.

Current Study

The current study attempts to further contribute towards the understanding of the role of nonverbal communication on perceptions of sexual willingness. Kowalski (1992) is one of many researchers who have found gender differences in how friendly and flirtatious behaviour is perceived, and ultimately the risk of harm from sexual violence through possible miscommunication regarding the issue of consent. The present study is a conceptual replication of Kowalski (1992) and examines men's perceptions of consent within a heterosexual dating scenario, as well as the relationship between masculinity and perceptions of sexual willingness. The latter was not studied within Kowalski's (1992) research, however, has been included within the present study in order to assess whether different levels of conformity to masculine norms, impact how men interpret nonverbal behaviours during sexual encounters. This will be the first study to examine hypermasculinity and nonverbal behaviours during sexual activity exclusively.

Kowalski's (1992) original experiment used written vignettes to operationalise and depict nonverbal behaviours; however, the current study will use a combination of written vignettes and a video clip to explore different nonverbal behaviours. The decision to utilise video clips depicting the manipulated nonverbal behaviours was made in order to measure men's perceptions of the nonverbal behaviours, when they are not explicitly pointed out to them.

Research hypotheses

The following hypotheses were addressed:

1. Men's adherence to hypermasculine norms (as measured by the conformity to masculine norms measure) will act as a predictor for their decisions around the likelihood of sexual intercourse occurring.

2. Higher self-reported levels of sexual experience will act as a predictor for decisions around the likelihood of sexual intercourse occurring.
3. Young-adult men will be significantly more likely than older men to predict sexual intercourse occurring.
4. Hypermasculine men are significantly more likely to perceive nonverbal behaviours to be indicative of likelihood of sexual intercourse compared to men with lower masculinity scores.
5. Men are significantly more likely to perceive Kowalski's (1992) medium nonverbal behaviours (namely, kissing and a woman touching a man's thigh) to be more indicative of likelihood of sexual intercourse than low level nonverbal behaviours (i.e., maintaining eye contact and holding hands) when controlling for CMNI-46 (hypermasculinity) scores.
6. Hypermasculinity will act as a predictor of decisions that sexual intercourse took place in both the low and medium groups.

Methodology

Sample

Initially, G*Power software was consulted to estimate an adequate sample size and power calculations (Faul et al., 2007). This indicated that 787 participants would be required for a 0.2 effect size. The study recruited 888 adult male participants who resided in the United States.

Previous research has largely recruited young adults; therefore, it is not clear how older adults perceive sexual consent. The present study sought to address this gap, and did not set an upper age limit on participation. 30.6% of the participants were in the 25-34 age range;

30.4% being in the 35-44 age group, 15.5% in the 45-54 group, 15.1% being 55 and over, and 8.3% being in the 18-24 age range.

The study included 67.8% of participants to be White or Caucasian, 12.7% were Black or African American, 8.1% were Asian or South Asian, 7.7% were Hispanic or Latino, 0.9% were Another race, 0.5% American Indian or Alaska Native, 0.3% did not want to say and 0.2% were Native Hawaiian or other Pacific Islander.

Design

A 2-cue condition (low nonverbal cues versus medium nonverbal) x 2 recall order (recall cues before or after rating sexual intentions) between subjects' design was used, with participants randomly assigned to conditions. The recall order was included to control for potential order effects rather than being investigated to see whether or not the order in which participants viewed the material had an impact on the findings. The covariates measured included self-reported personal sexual experience ratings, masculinity, and age. The dependent variable was men's rating of sexual intercourse likelihood (sexual likelihood) between the couple within the study.

Materials

The participants were asked to provide demographic information (see Appendix I) about themselves, including their age category (18-24 / 25-34 / 35-44 / 45-54 / 55+) and ethnicity. Participants were also asked to describe their sexuality (heterosexual, homosexual, bisexual, other, unsure, would rather not say). Afterwards, participants were asked to indicate their employment status (full-time/ part-time/ not in employment / retired/ full-time education / part-time education), and to rate their sexual experience using a 7-point Likert scale (1 being completely inexperienced – 7 being extremely experienced).

Parent and Moradi's (2009) Conformity to Masculine Norms Inventory-46 (CMNI-46):

The CMNI-46 is used in the current study to assess participants' level of conformity to masculine norms displayed within society (Appendix J). The inventory is a revised version of Mahalik et al.'s (2003) original measure which consisted of 94 items. The CMNI-46 has been empirically tested and found to have high validity and reliability (Parent & Mordai, 2009). The psychometric aims to "measure attitudes, beliefs, and behaviours associated with both traditional and non-traditional masculine gender roles" (Holmes, 2014, p. 192). Both the original CMNI and CMNI-46 devised norms about masculinity based on data gathered from American student populations. The participants are asked to answer the items from their own perspective by considering their own personal actions, attitudes and beliefs using the response scale; "strongly disagree / disagree / agree / strongly agree" (Parent & Modari, 2009, p. 179).

Diehl et al., (2012) Short-Term Mating Orientation (STMO)

Diehl et al. (2012) originally devised the STMO to measure male mating strategy, and it has since been used to measure a range of different topics including sexual harassment, sexual aggression, and sexual refusals. This scale aims to interpret male motivations within sexual interactions and assess desired outcome of their behaviour towards a potential mate. The tool consists of four short statements (see below) about the acceptability of behaviour associated with short-term sexual encounters, which are rated on a 1-7 Likert scale.

1. Sex without love is OK.
2. I can easily imagine myself being comfortable and enjoying 'casual sex' with different partners.
3. I could easily imagine myself enjoying one night of sex with someone I would never see again.
4. I could enjoy sex with someone I find highly desirable even if that person does not have long-term potential.

The STMO was included to examine whether British and American men held different ideas about casual sexual encounters. Initially the study sought to include participants from the United Kingdom and America to compare the results. However, following data collection difficulties, only American participants were included in the final analysis. However, the data collected by the STMO were used in the results as American men were asked how they think British men and women would respond to these statements, as the characters in the video clip presented with British accents. The aim of including this data was to measure whether American participants viewed themselves to be significantly different in their sexual behaviour compared with British people, which would therefore impact the external validity of the findings. The results from the SMTO were examined with the participants sexual experience scores as it was predicted that the false consensus bias (Ross et al., 1977) would be present and participants would predict that others behave similarly to themselves, as opposed to differently, in line with previous research (Alicke & largo, 1995; Bosveld & Kooman, 1994; Mullen et al., 1985; Sherman et al., 1984; Ross et al., 1977).

Kowalski (1992) amended vignette

A vignette that presented participants with contextual information about John and Mary's relationship and first date was presented first. A pilot study was conducted in June 2020, wherein five individuals aged between 18-58 years, all of whom resided in the UK, made suggestions on how to alter the language used in Kowalski (1992) original vignette (see Appendix L) to improve the reliability and relatability of the scenario. Following the decision to include solely American participants, another pilot study using three international students aged between 26 – 39, took place in January 2021. Recommendations were made to change the word "film" back to "movie" to represent current American terminology.

Revised vignette used in the study

"John and Mary were both students at a University. Although they had seen each other around campus, they became acquainted when they enrolled in the same class. Because they sat next to each other in class, they talk on occasions and borrowed notes from one another when they had to miss a class. Halfway through the semester, John asked Mary out for the following Friday night. After he picked her up, he suggested that they have dinner and then go to see a movie she had been wanting to see. Over dinner they discussed their classes and the friends they had in common. They continued this conversation whilst they were waiting for the movie tickets. John paid for the tickets and they went inside. Following the movie, John and Mary were walking to the car trying to decide on something else to do. Mary suggested that she had just bought a new wireless speaker and they could go to her apartment and listen to music. Upon arriving at the apartment, Mary turned on the speaker and they sat on the sofa listening to music and talking".

Two nonverbal behaviour video clips

The researcher created two video clips that were the same length of time (1.43 minutes), contained the same male and female actors, whom were having the same dialogue (Appendix M for video script), in the same environmental setting. This was in order to control any variance between the two video clips which may have influenced how the participants responded. The only material which differed between the video clips was the nonverbal behaviour. Participants were shown one of two clips depending on the group (low versus medium behaviour groups) to which they were randomly assigned.

- Low Nonverbal Behaviour Group: Mary holds John's hand; Mary maintains eye-contact with John.

- Medium Nonverbal Behaviour group: Mary touches John's thigh; Mary and John kiss on the lips.

Procedure

Participants were recruited through Amazon's Mechanical Turk (https://www.mturk.com), which is a crowdsourcing website that enables researchers to recruit and pay participants to complete an online survey. To be eligible to participate in the study, participants had to be male, over the age of 18, and reside in the United States. Mechanical Turk advertised the study only to participants who met these criteria. Participants were compensated $1 for completion of the study, which took approximately fifteen minutes. Prior to commencing the survey, the participants were provided with general information about it, and asked to confirm their consent (see Appendix G) before being able to proceed.

The participants were told that the researchers were investigating perceptions of social and dating interactions within the information sheet provided at the start of the experiment, and informed of the studies true nature during the debrief following completion. The participants were not informed about the aims of the experiment prior to completing the study to ensure that they were not primed to look for nonverbal behaviours in the video clip, as the study was interested in investigating whether participants perceive nonverbal behaviours and form decisions about likelihood of sexual intercourse, based upon these. At the end of the study, participants were provided with the debrief information outlining the true aims of the research and provided again with information about how to withdraw their data (see Appendix H).

At the end of the study, participants were given the opportunity to take part in a raffle prize draw to win a $100 Amazon voucher. Those who wished to enter provided their email

address. The successful applicant was contacted via email address and provided with the prize.

Firstly, the participants were asked to complete the demographic questions, followed by answering the Short-Term mating Orientation (STMO) statements. The participants were randomly assigned to read the vignette (followed by watching one video clip) or to answer the Parent and Modari (2009) Conformity to Masculine Norms Inventory (CMNI-46) next. Following this, the participants were either asked to recall the video clip next, or rate the likelihood of the couple have consensual intercourse that evening. Counterbalancing in this manner eliminated any systematic effects related to task completion order on the data.

The short vignette (detailed above) depicted the relationship background and first date of two students named John and Mary. Subsequently, participants proceeded to a video clip that showed John and Mary sitting on a sofa at Mary's house discussing music. The verbal conversation during the video clip consisted of neutral, non-sexual conversational topics (e.g., discussing music they both enjoyed and friends they have in common, see Appendix M) in order to enable the nonverbal behaviours displayed to be the main focus of the video clip. The participants were assigned randomly to one of the cue conditions (low or medium nonverbal behaviour group), which differed in the nonverbal behaviours depicted. The two groups were defined in Kowalski (1992) experiment and include the following behaviours, as aforementioned in the materials section.

Both video clips contained an identical script and the nonverbal behaviours were implemented at the same points in each video (i.e., at 42 seconds into both of the videos, the couple held hands in the low group and Mary touched John's thigh in the medium group). Following watching the video (please note - participants were unable to proceed to the next section until the video had finished), participants were randomly assigned to either:

1) Recall the video clip ("In the space below, describe what happened in the video clip between John and Mary. Be as descriptive as you can.") and then asked to rate whether John and Mary had sexual intercourse that evening using a 5-point Likert scale ("Do you think that John and Mary had consensual sexual intercourse that evening?). Or;
2) Answer the Likert scale question first ("Do you think John and Mary had consensual sexual intercourse that evening?"). Followed by recalling the video clip ("In the space below, describe what happened in the video clip between John and Mary. Be as descriptive as you can.").

Finally, the participants were asked to describe what influenced their sexual likelihood ratings. They were given a free recall textbox to state their reasoning ("Using the space below, please provide the reason for your decision about whether John and Mary had consensual sexual intercourse this evening. Please be descriptive."). The aim of making a request for their reasoning was to measure which specific behaviours impacted the participant's decision making around the likelihood that John and Mary had consensual sexual intercourse that evening and whether nonverbal behavioural cues contributed to this. There could also have been content within the vignette, such as John asking Mary on a date, which possibly correspond with traditional gender scripts, that could have influenced the participant's decision making. Therefore, this question attempted to gather insight into how participants in 2021 form decisions about the likelihood of sexual intercourse occurring.

The study then concluded and debrief information was provided to the participants. In the debrief, participants were informed about the true nature of the experiment and that the researcher was measuring the impact that nonverbal behaviours have on perceptions of consent. It was explained to the participants that they were not informed about this at the start

of the experiment in order to avoid priming their behaviours as the researcher sought to measure their natural reactions and responses to a dating scenario. The participants were given information again about how to immediately withdraw their data if they wished to do so, or how they could do so at a later date in the future. During this debrief section, they were reminded that their data would be confidential, as well as given details about how to enter the prize draw.

Ethical considerations

Ethical approval was obtained from the University of Birmingham Ethics Committee (ERN_20-0567) in November 2020. One ethical consideration concerned delayed debriefing, whereby participants were informed about the aims of the experiment at the conclusion of their participation. Participants were not provided with information about the aims of the study so as to not influence their responses and therefore increase measurement accuracy regarding nonverbal indicators of consent. Full disclosure regarding the aims of the study was given during debriefing and participants were given the option to withdraw during the debrief stage once informed about the aims of the study if they so wished.

Participants were assigned a unique code to facilitate data withdrawal. Participants were given the opportunity to participate in a prize draw by providing their email address at the conclusion of the study to take part in the optional prize raffle for a $100 Amazon voucher. Email addresses were stored separately from participant data, on encrypted device to which only the researcher and academic supervisor had access. No personally identifying information was obtained from participants who did not wish to take part in the prize raffle. The participants were provided a unique code after consenting to take part in the experiment and asked to keep their code safe as they would require this if they wished to withdraw. The participants were advised of the cut-off date by which they could request their data to be

removed (30th June 2021) and informed that after this date it would not be possible to withdraw their data.

Analysis

Participants who did not complete all sections of the survey were removed from the final analysis (*n*= 118). Similarly, participants who did not recall anything related to the vignette or video scenario, within the recall section, were also removed from the final analysis (*n*= 12). This was to ensure that all participants were concentrating during the video clip and providing decisions about sexual behaviour based upon the same information. Finally, participants who reported difficulties in understanding the dialogue between the British couple were removed from the final analysis (*n*= 6). Therefore, the study included results from 888 American men.

The analysis included ANOVAs (and associated assumption tests) to examine the data and test the hypotheses. Due to differences in sample sizes (see Appendix N), unequal-variance tests were used to reduce the chance of a Type 1 and Type 2 error's (Coombes et al., 1996). Initial tests for homogeneity of variance (Levene's test) were run to identify which t-test was required. Research has shown that unequal variance tests, such as the Welch test, can perform comparably to t-tests even when sample populations are unequal (Moser & Stevens, 1992; Zimmerman & Zumbo, 1993). Therefore, this methodology was adopted when t-tests could not be applied due to significant differences in sample means. Furthermore, post-hoc Games-Howell tests were used in these instances for performing all pairwise comparisons (Toothaker, 1993). Details of which type of analysis were used to test each hypothesis are provided below.

Results

Preliminary Results

Preliminary tests were completed to examine the demographics of the data collected (please see Appendix N). These tests used one-way ANOVA's (with Welch tests included where necessary), to assess the differences within the sample. The results showed that the largest proportion of participants were White-Caucasian, aged between 25-34, identified as heterosexual, and were in employment. Participants in the 35-54 age group provided significantly higher CMNI-46 scores compared to participants in the 55+ age group (see Appendix N). The youngest participants (forming the 18-24 age group) rated their sexual experience to be significantly lower than men in the older age groups, and Black-African participants self-rated their sexual experience to be significantly higher than Asian participants.

Reliability & Order Effect Testing

To test the reliability of the study's design, participants were asked to provide an opinion on how they believe British men and women behave during short-term sexual encounters, through answering statements from the STMO. This was due to the couple within the video segment presenting with British accents and the sample consisting of American men. This analysis aimed to establish whether the fact that the actors were British impacted the participants' predictions around sexual behaviour.

A paired t-test found that the participants were more likely to view British men as conforming to short-term dating behaviours (M= 5.46, SD= 1.31) compared to British women (M= 4.46, SD= 1.33), $t(887) = -24.781$, $p < .000$. These behaviours included engaging in one-night-stand encounters and having multiple sexual partners of whom they do not wish to have longer term relationships with. Although this study did not examine who the participants deem to be the instigator of sexual behaviour within the hypothetical scenario, these findings do support wider literature that has found that men are more likely to endorse views around

casual sexual encounters compared with women (Allison & Risman, 2013; Jonason & Fisher, 2008; Petersen & Hyde, 2011)

Pearson correlations were performed to test whether there was a relationship between the participants STMO scores that measured how American men think British men and women behave during casual sexual encounters, with their self-rate scores for sexual experience. This was to test whether participants would form decisions regarding the behaviours of others, based upon their own behaviours, i.e., testing for confirmation bias. Positive correlations were identified, with higher levels of sexual experience being positively correlated with the STMO scores for both British men, $r(888) = .085$, $p < .011$, two-tailed, and British women $r(888) = .095$, $p < .004$, two-tailed. These results suggest that participants with higher levels of sexual experience viewed others as being similarly sexually experienced, linking with the false-consensus bias (Ross et al., 1977). Therefore, suggesting that the British actors did not significantly impact how American men view sexual interactions or form predictions on likelihood of sexual intercourse. However, both correlations are considered weak in accordance with Evans (1996) correlation guide and should therefore be viewed with caution.

The participants completed the survey in differing orders to account for an order effect. Four hundred and ninety-one completed the CMNI-46 at the start of the survey and three hundred and ninety-seven completed it at the end. Independent t-tests found that there were not statistically significant differences between CMNI-46 scores for participants who were asked to complete the psychometric at the start of the survey, compared to completing it at the end, $t(886) = 2.704$, $p = .333$ (Table 4).

Table 4

CMNI-46 scores based on completing the psychometric at the start or end of the survey.

CMNI-46	Mean	Standard Deviation
Start	63.973	20.510
End	60.342	19.111

Participants were randomly assigned to intent prior to recall, or, recall prior to intent conditions. Six hundred and forty-one participants were asked to recall the video clip before being asked to provide a sexual intent rating, whereas two hundred and forty-seven completed this vice versa. Independent t-tests indicated (Table 5) that there were not any significant differences between the sexual intent scores provided based on the order in which participants completed the survey, $t(886) = .255$, $p = .205$. These results suggest that there is no evidence of an order effect within the findings.

Table 5

Intent score based upon time recall of the hypothetical date scenario.

Recall v Intent Score	Mean	Standard Deviation
Recall First	3.00	1.088
Intent Score First	2.98	1.108

Results for Research Hypotheses

To address hypothesis one and two **(**1) Men's adherence to hypermasculine norms [as measured by the conformity to masculine norms measure] will act as a predictor for their decisions around the likelihood of sexual intercourse occurring, and, 2) Higher self-reported levels of sexual experience will act as a predictor for decisions around the likelihood of sexual intercourse occurring) a multiple regression analysis was performed, with CMNI-46 scores and sexual experience as predictors, and sexual likelihood ratings as the outcome variable.

Table 6

Multiple Regression analysis summary for CMNI-46 scores, sexual experience and sexual likelihood ratings.

Variable	B	95% CI	β	t	p
(constant)	1.44	1.15 – 1.73		9.71	.00
CMNI-46 Score	.016	.013 - .020	.296	9.24	.00
Sexual Experience	.104	.059 - .149	.146	4.55	.00

Note R^2 adjusted = .12. CI = confidence interval for B.

As can be seen in Table 6, the regression model showed that participants CMNI-46 scores and self-reported sexual experience ratings significantly predicted perceptions of likelihood scores. Everything else being equal, participants were 12.7% (R^2= .127) more likely to predict that John and Mary would engage in consensual sexual intercourse as CMN-46 scores increased, and as participants self-reported sexual experience increased. This supports hypothesis one and two that predicted that higher levels of conformity to masculine norms and ratings of sexual experience, would increase decisions about the hypothetical couple engaging in sexual intercourse that evening.

Age and perceptions of sexual intercourse likelihood

To address hypothesis three **(**i.e., young-adult men will be significantly more likely than older men to predict sexual intercourse occurring) an ANOVA was performed. Age and sexual likelihood scores were analysed (Table 7) to establish whether there were differences

in how participants of different ages predicted the likelihood of consensual sexual intercourse between John and Mary that night. The null hypothesis was accepted following a Levene's test, **F**(4, 883) = 1.545, p = .187. A one-way ANOVA showed that there were not any significant differences between age groups and intent scores, **F**(4, 883) = 1.627, p = .165. This finding rejects hypothesis three, and therefore shows that there is not a significant difference in predictions made by young-adult men about likelihood of sexual intercourse. However, young-adult men were the smallest age group (18-24 age group, n= 74) in this study and therefore could be considered less representative compared with older age groups within this data set, which may have impacted these findings.

Table 7

Age and sexual intent scores

Age	Mean	Standard Deviation
18-24	3.09	1.273
25-34	3.11	1.076
35-44	2.98	1.104
45-54	2.92	1.054
55+	2.85	1.022

Detecting nonverbal behaviour

To address hypothesis four (i.e., hypermasculine men are significantly more likely to perceive nonverbal behaviours to be indicative of likelihood of sexual intercourse compared to men with lower masculinity scores), independent t-tests were performed using CMNI-46 scores and recall data. Participants' recall was coded depending on whether they identified the specific manipulated nonverbal behaviours and included these within the reasons they

provided for likelihood of sexual intercourse scores. Results of the interaction between John and Mary indicated that participants who commented on nonverbal behaviours (n= 407) were more likely to provide higher sexual likelihood ratings (M= 3.50, SD = .99) compared to participants who did not comment upon nonverbal behaviours (n= 481, M= 2.27, SD= .987), $t(886) = 13.90$, $p < .000$. This suggests that participants who detected nonverbal behaviour were more likely to predict that John and Mary had consensual intercourse that night ("Do you think John and Mary had consensual sexual intercourse that evening?") compared to those who did not comment upon nonverbal behaviours.

Nonverbal behaviours and sexual likelihood scores

In order to address hypothesis five (i.e., men are significantly more likely to perceive Kowalski's (1992) medium nonverbal behaviours [namely, kissing and a woman touching a man's thigh] to be more indicative of likelihood of sexual intercourse than low level nonverbal behaviours [i.e., maintaining eye contact and holding hands] when controlling for CMNI-46 [hypermasculinity] scores) an ANCOVA was conducted. This analysed the participants' sexual likelihood scores in relation to which video they were randomly assigned to (low and medium nonverbal behaviour videos). Firstly, a Levene's test of variance indicated that the groups had equal variances, $\mathbf{F}(1, 886) = .069$, $p = .792$. Results from the ANCOVA demonstrated a statistically significant difference between the participants likelihood scores and video watched, $F(1, 886) = 22.620$, $p = <.001$, and the effect size accounted for approximately 25% of the variance (η^2) = .025.

The CMNI-46 scores were identified as the covariates within the ANCOVA, with the nonverbal behaviour video as the independent variable and sexual likelihood scores as the dependent variable. The F-test indicated that there was not an interaction between video watched and CMNI-46 scores, $\mathbf{F}(1, 884) = .775$, $p = .379$. The ANCOVA (Table 8) showed

that despite controlling for covariance, namely the CMNI-46 scores, within the low and medium nonverbal behaviour video, participants in the medium level video provided significantly higher scores on the likelihood scale (M_{adj}= 3.147 versus = 2.8 M_{adj} 56, p = < .001). This finding supports hypothesis five that stated that participants in the medium nonverbal behaviour group would be more likely to predict that John and Mary had sexual intercourse that evening, compared to the low nonverbal behaviour video group. This suggests that nonverbal behaviours, such as kissing and a woman touching a man's thigh, are more indicative of subsequent sexual intercourse, than maintaining eye-contact and holding hands.

Table 8

ANCOVA for sexual intent scores, video condition, and CMNI-46 scores

	Video 1	**Video 2**
Mean	2.83	3.17
Standard Deviation	1.089	1.075
M_{adj}	2.856	3.147
Standard Error	.048	.049

Dependent variable, Intent score (1-5)

Conformity to masculine norms scores and perceptions of nonverbal behaviour

To address the final hypothesis (i.e., hypermasculinity will act as a predictor of decisions that sexual intercourse took place in both the low and medium groups), a multiple regression analysis was performed. The CMNI-46 scores and video watched were predictors, and sexual likelihood ratings were the outcome variable (Table 9). The results showed that men with higher CMNI-46 scores were 12.4% (R^2 = .124) more likely to predict that John and Mary had sexual intercourse across both videos, thus supporting hypothesis six.

Table 9

Multiple Regression analysis summary for CMNI-46 scores, nonverbal behaviour video, and sexual intent ratings.

Variable	B	95% CI	β	t	p
(constant)	1.489	1.21 – 1.78		10.13	.001
CMNI-46 Score	.017	.014 - .021	.316	10	.001
Video Watched	.290	.155 - .425	.133	4.21	.001

Note R^2 adjusted = .12. CI = confidence interval for B.

Discussion

Understanding how people conceptualise and form decisions about the likelihood of sexual intercourse occurring is important when attempting to challenge and change behaviours that may result in sexual aggression. One finding from this study is that higher levels of hypermasculinity can impact how nonverbal behaviour is perceived and increase predictions about likelihood of sexual intercourse. This finding supports previous literature that has found that men use interpretations about nonverbal behaviour to inform decisions about a partner's likelihood to engage in sexual activity with them (Jozkowski & Peterson, 2013; Kowalski, 1992; Newstorm et al., 2020). Furthermore, this study highlights that hypermasculine men are more likely to interpret nonverbal behaviours as indicative of sexual likelihood, compared to men with lower masculine scores. This finding is not surprising, and supports previous literature that has found that hypermasculine men are more likely to display sexual aggression (Malamuth et al., 1996; Parrott & Zeichner, 2003). However, the literature

on hypermasculinity and perceptions of sexual consent has been mixed. Shafter et al's. (2018) study found that "hypermasculinity was not associated with negative sexual consent attitudes, intentions, or interpretations" (p. s48). They support the notion that hypermasculinity can be viewed as a multidimensional concept (Corprew et al., 2014a), with different dimensions, including values such as honouring and protecting women. The current study does not oppose this concept, as the participants were shown a consensual first date scenario and were not provided information about the possibility of sexual intercourse. Instead, participants were asked to predict the likelihood of intercourse occurring based on the behaviour of John and Mary in the vignette and video scenario. Therefore, hypermasculinity cannot be specifically associated to positive or negative consent attitudes, as this was not directly measured.

Hypermasculinity was found to be a predictive factor for estimating that the couple would engage in consensual sexual intercourse that evening. Therefore, it could be argued that hypermasculinity is associated with how men interpret nonverbal behaviours and form decisions about the likelihood of sexual intercourse occurring. Previous research has found that hypermasculine men are more likely to overestimate the likelihood of sexual activity taking place compared to men with lower masculinity scores (Corprew & Mitchell, 2013; Vechiu, 2019). This finding supports the notion that hypermasculinity is associated with higher predictions about consensual sexual intercourse taking place, however, it does not determine whether this is an overestimation as specific information about whether sexual intercourse took place was not provided nor measured.

The results further showed that men who scored highly for hypermasculinity were more likely to identify the nonverbal behaviours within the video clips and commented on them when asked to provide a reason for why they think the couple had consensual intercourse. This finding suggests that hypermasculine men may perceive nonverbal

behavioural cues as being indicative of sexual likelihood more so than men with lower masculinity scores. However, it is unclear whether participants with lower masculine scores also perceived the nonverbal behaviours as indicative of sexual likelihood, but chose not comment on them during the free recall sections. Therefore, one assumption could be that hypermasculine men within this study identified behaviours that aligned with what they thought might happen next, namely the couple were likely to engage in sexual intercourse, based on interpretations they made about the couple's behaviour. This finding supports previous literature that has found that men overestimate nonverbal cues provided by female partners during date scenarios (Abbey, 1982; Farris et al., 2008; Perilloux et al., 2012). Furthermore, adding to the literature on how decisions are formed by hypermasculine men about likelihood of sexual activity.

Sexual experience was also found the be a predictive factor for both higher CMNI-46 scores and sexual likelihood ratings. It has been argued that sexual conquest is a heteronormative belief featured within hypermasculinity (Connell, 2005; Montoya, 1995) and therefore hypermasculine men are likely to have more casual sexual partners (Bogaert & Fisher, 1995; Burk et al., 2004) and consider themselves to be sexually experienced (Vechiu, 2019). This study supports previous research which found that men with higher conformity to masculinity scores self-rated their sexual experience to be higher compared with men who had lower masculinity scores (Corprew & Mitchell, 2013).

When considering this sample, the majority of the men self-reported their sexual experience as being at the higher end of the Likert scale. This finding could be interpreted in a number of ways, one being that the men within this sample may over-represent hypermasculine men and therefore the findings do not sufficiently represent the general population where it is expected that there would be a mix of sexual experience. Alternatively,

these ratings of sexual experience could be viewed with caution, as they are self-ratings and therefore elements of social desirability and anonymity may have caused the participants to inflate their score. Furthermore, the participants were not provided a definition or scaling guide for sexual experience and consequently the ambiguity of the question may have resulted in differences in how the men scaled their sexual experience.

The findings did show that age increased sexual experience rating scores. The 18-24 group rated their sexual experience as significantly lower than the rest of the sample. Therefore, the responses may reflect increased levels of sexual experience that one develops through their life. However, this raises questions about how sexual experience can impact perceptions during sexual encounters. Do older participants rely on previous experience, good or bad, to interpret sexual consent, and if so, how accurate are these assumptions? Alternatively, can higher levels of sexual experience result in greater accuracy when predicting sexual likelihood due to increased exposure to different sexual encounters and experiences? The current study does not measure this specifically, and it remains unclear to the participants about whether John and Mary did engage in sexual intercourse on that night. Instead, the study asks the participants to predict the likelihood of intercourse occurring and predicts that this decision was based upon the participants own experiences. Therefore, it could be argued that increased sexual experience results in greater awareness of nonverbal behaviour, compared to men with lower ratings of sexual experience.

The study also found that participants who reported observing nonverbal behaviours during John and Mary's interaction were more likely to predict that they would have sexual intercourse that night. This suggests that detection of nonverbal behaviour, without being prompted, increased beliefs about the likelihood of sexual intercourse in both the low and medium video conditions. This score was higher in the medium nonverbal behaviours

condition, showing that the manipulation of nonverbal behaviour had a desired effect on participants' predictions about the likelihood of sexual intercourse for John and Mary that evening. These results do not differ from Kowalski's (1992) original experiment - where it was found that men viewed these specific behaviours (i.e., kissing, touching of thigh) to be indicative of sexual likelihood. It is of interest that the findings of the current study demonstrates that thirty years later, these behaviours continue to be perceived by men to be indicative of a woman wanting to engage in sexual intercourse.

Possible reasons for this finding could be linked to the miscommunication theory, as researchers have found gender differences in how men and women communicate during sexual encounters (Abbey, 1989). Previous research has found that men are more likely to perceive that a partner wants to engage in sexual intercourse with them compared with women (Abbey, 1982; DeSouza & Hutz,1996; Fisher & Walters, 2003). As discussed in the introduction, possible explanations for this could be linked to societal norms and connotations placed upon nonverbal behaviours that are reinforced through the media (Wood et al., 2002).

The study hypothesised that young-adults would be more likely to predict that John and Mary would engage in sexual intercourse compared to older participants. This hypothesis was based upon previous research, that has primarily included university student samples, and found that young adults overestimate sexual interest from a partner (Abbey, 1982; Harnish et al., 1990; Lindgren et al., 2008; Muehlenhard et al., 2016). However, age was not found to be a predictive factor in how men form decisions about likelihood of engaging in sexual intercourse. Although a statistically significant difference was not found, it should be noted that young adults formed the smallest age range (n= 74) compared to the rest of the sample (n= 814). Therefore, greater comparisons could have been made had the age range groups been equal in size. However, these results are promising for generalising previous research

that has only included young adult samples, as it suggests that there are not fundamental differences in how men of differing ages perceive nonverbal behaviours during sexual interactions.

Previous research has found that sexual consent occurs in a sequential pattern that can start in an external environment, such as a bar, and continue until a couple are in a private environment (Jozkowski et al., 2018). This study recreated this by providing a vignette describing the hypothetical couple's history with one another, and details of their first date. Previous studies have identified specific nonverbal behaviours that men and women display to indicate sexual consent within the subsequent moments before sexual activity, such as positioning oneself so they are ready for sexual intercourse and increasing physical contact (Beres, 2010; 2014; Hickman & Muehlenhard, 1999; Jozkowski et al., 2014). This study depicted a scenario before this, whereby John and Mary were sitting on a sofa following going out on a date, and subtle nonverbal behaviours were introduced in order to measure the participants interpretations of these behaviours. Muehlenhard and Schrag (1991) found that men expect sexual activity to advance in a behavioural sequential fashion, starting with kissing, petting, and leading to sexual intercourse (Lim & Roloff., 1999, p. 5). The results of this study continue to support this finding, as the participants were presented with a visual scene, following being provided with background information about how well the couple know one another. The study found that participants were significantly more likely to predict sexual intercourse took place within the medium condition compared to the low video level (i.e., holding hands and maintaining eye contact). These findings demonstrate a lack of change in interpreting nonverbal behaviours, despite increased social awareness, such as the #metoo movement, and greater education on consensual behaviour.

Similar to much of the current consent literature, the participants' arousal levels during the study were not measured and therefore it is unknown what impact this may have had on decisions made about sexual likelihood. As introduced in chapter one, the Yerkes-Dodson Law (Yerkes & Dodson, 1908) states that increases to internal arousal (e.g., stress) can impact a person's performance during a task. Although the current study did not intend to manipulate participants arousal, the topic of sexual encounters and use of visual stimuli depicting a date-scene may have impacted the participants internal state of arousal and potentially evoked emotional responses. Research examining the misattribution theory (Schachter & Singer, 1962) have found support for the notion that people can mistake the source of their arousal when emotionally aroused (Cantor et al., 1975). Likewise, Davis and Leo (2012) found that strong emotions and desires can impact cognitive executive functioning, and therefore Rerick and Livingston (2022) suggest that people who are motivated to have sexual intercourse may be more inclined to perceive that other's behaviours are consistent with their desires. Therefore, arousal levels may impact interpretations made about another's behaviour, which could be significant when considering the nuances of nonverbal behaviour during sexual interactions. It is noted that this was not measured within the current study and this is a limitation of this research (see below for limitations section). It is recommended that this is considered within future studies which measure consent in order to examine how arousal impacts perceptions and interpretations of behaviour during sexual encounters.

Strengths of Current Study

The vast majority of the previous literature investigating interpretations of consent have used college student samples, with age ranges representing young adults, between 18-25 (Hall, 1995; Jozkowski et al., 2015; Kulyman et al., 2015; Pugh & Becker., 2018; Shafter et

al., 2018). Therefore, consent negotiation and interpretations of older adult populations remain relatively unknown. The current study has collected data from men of different ages, ranging from 18-55+ years. The results support the previous literature as they show that men may perceive nonverbal behaviour, such as kissing and a woman touching a man's thigh, as indicative of sexual interest (Abbey, 1982; Lee et al., 2020; Kowalski, 1992). These results could be generalised to the broader age population of American men; however, they particularly represent the views of men between the ages of 25-44 years (n= 542) who make up approximately two thirds of the sample.

To a certain degree, these results support the validity of collecting data on university sample students, as this study has found similar findings to previous research in relation to interpretations men make about specific nonverbal behaviours being indicative of sexual likelihood (Beres, 2010; Fisher & Walters, 2003; Johnson et al., 1991; Jozkowski et al., 2014). However, the study did not ascertain whether the participants had ever attended university, where it could be argued that some negative views about sexual behaviour, may have been reinforced (Cole et al., 2020; O'Conner et al., 2018; Seabrook et al., 2018). This could have offered further information about the comparability of the sample to those used in previous research.

Limitations of Current Study

The current study predicted that men with higher levels of conformity to masculine norms were at an increased risk of perceiving nonverbal behaviours to indicate likelihood of engaging in sexual intercourse. However, it did not offer further exploration for other reasons about why participants may have made this prediction. For example, the participants were shown a young-adult couple who were in their early twenties and attending university. Therefore, this may have activated stereotypes that participants may hold about the behaviour

of university student's sexual behaviour (Willetts et al., 2004). Furthermore, had they been shown a couple of an older age which was perhaps more aligned to the samples age demographic, it is possible that that the results may have differed (Jozkowski & Peterson, 2011; O'Bryne et al., 2008).

The STMO asked participants to rate how they think British men and women behave in relation to casual sexual encounters, but did not ask them to rate the same questions about themselves. This would have strengthened the study as comparison testing could have been conducted to identify whether there are any significant differences between how the participants rate others sexual behaviour, compared with their own. It is recommended that this is included in future research in order to increase the external validity of the results.

It is also noted that the participants were not asked if *they* would have had sexual intercourse with Mary, if they had been in John's position, but instead were asked to make predictions about how John and Mary could behave. Hence, the responses provided could be based upon assumptions they made about the hypothetical couple, as opposed to representing their own behaviour. However, the findings do demonstrate that nonverbal behaviours can increase perceptions of sexual intent. It remains unclear whether the participants would behave the same way as they predicted John and Mary would within the study. Therefore, the external validity of the study could have been increased if the researcher asked the participants to imagine themselves within the scenario, as discussed in chapter two (Hickman & Muehlenhard, 1999).

It would have also been beneficial to gather further demographic information on the sample, such as their education history and current relationship status. Previous literature has found that participants perceive nonverbal behaviour differently when they are single compared to when they are in long term relationships (Rerick et al., 2020). Therefore,

additional analysis of the participants could have added a greater depth of knowledge about how and/or why they formed the decisions they did about sexual intent.

It may also be useful to understand how the participants conceptualise their sexual experience. For example, do they consider having multiple casual sexual partners as being representative of increased sexual experience, or, would they consider consistent sexual activity within a long-term relationship as being sufficient enough to represent high levels of sexual experience. Although the researcher encouraged the participants to apply their own interpretation of sexual experience to the question when answering, follow up questioning about this would have been useful in order to establish if there were any differences in the behaviour of lower-masculine and hypermasculine men.

Furthermore, the current sample largely consisted of White-Caucasian men (67.8%) which raises questions about how applicable the results are to men of different ethnicities. Black / African American participants reported being significantly more sexually experienced compared to Asian / Asian men. Although these results should be viewed with caution due to their unequal sample sizes, this is an interesting finding and raises questions about the reliability of generalising research about sexual behaviours to different cultures and ethnicities.

As discussed above, the current study did not measure participants' levels of arousal to the stimuli depicted within the design. Therefore, it is unknown how different states of arousal may have impacted upon the interpretations made about the nonverbal behaviour or predictions about John and Mary having consensual intercourse that evening. This is a limitation of the current study, but also the wider consent literature, that generally has not included this as a measure within studies.

Additionally, greater understanding is required of how nonverbal behaviours are obtained and perceived with non-heterosexual samples. This current study is representative of primarily heterosexual interpretations of nonverbal behaviours, due to the limited responses from men with different sexual orientations. Therefore, these results may not be generalisable to different sexually active populations, including LBGTQ+ communities.

Implications for Practice

This study demonstrates the need for greater understanding of how men of all ages interpret nonverbal behaviour during sexual encounters and where these beliefs derive from. Whether these have been formulated from their own sexual experiences, or presented to them within mainstream media or pornography, perceptions have been applied and reinforced to specific nonverbal behaviours displayed by women, that can increase the risk of sexual aggression perpetrated by men. This study finds that thirty years after Kowalski's (1992) original research, these nonverbal behaviours continue to be similarly perceived by men as indicative of sexual willingness. Therefore, suggesting there has been little change in how men perceive and possibly act upon nonverbal behaviours.

Subsequently, a greater focus is required within psychoeducational programmes on how nonverbal behaviours are interpreted during sexual encounters, to challenge misperceptions. This ultimately could have a positive impact for men and women's sexual communication, particularly for those who report that they have misinterpreted behavioural cues from a partner. However, it would not negate intentional sexual aggression that is directed by some men towards women, or vice versa.

Directions for Future Research

The consent literature would benefit from continuing to include men of differing ages within research, as 54% of sexual assaults are not committed by university aged men in the

United States (Fritner & Robinson, 1993; Zernechel & Perry, 2017). This suggests that, although young adult men form a large percentage of individuals who have been reported to police for sexual offences, there continues to be an increased risk of older ages who commit sexual assaults again women. Therefore, greater understanding of how these men obtain and interpret consensual behaviours throughout their life would continue to develop awareness and knowledge around consent communication.

It would also be beneficial to replicate this study, however, using video's with couples of representing different ages, to establish whether unconscious stereotypes about young adults impacted how the participants responded within this study (Willetts et al., 2004). Additionally, more longitudinal studies that measure hypermasculinity at different stages of a man's life in conjunction with how they perceive nonverbal behaviours during sexual encounters would be valuable. These studies could examine whether there are any changes to perceptions of nonverbal behaviours, or increased periods of time within a person's life where they are likely to demonstrate increased risk of sexual aggression.

Conclusion

The results of the current study support previous literature showing that hypermasculine men are more likely to interpret behaviour, in this case nonverbal communication displayed within a hypothetical date scenario, to be indicative of sexual willingness. The study has collated data from a large age range of participants compared to much of the previous research to date, and has included participants who fall outside of the university student demographic. Therefore, these results could be more generalisable to the wider population, namely men from America, with White-Caucasian descent, of whom are currently in employment. Further research is recommended including men from different ethnicities and sexual orientations, to investigate their interpretations of nonverbal behaviours

during sexual interactions. However, this study found that hypermasculine men are more likely to interpret nonverbal behaviours to be indicative of sexual intent than men who conform less to masculine norms, therefore supporting previous findings. This finding should be taken into consideration when developing psychoeducation programmes as the role of hypermasculinity continues to influence decisions made around consent.

CHAPTER FOUR

CRITIQUE OF A PSYCHOMETRIC MEASURE: THE CONFORMITY TO MASCULINE NORMS INVENTORY-46 (CMNI-46)

Introduction

Psychometric testing attempts to measure a person's capabilities, behavioural style or belief's through quantitative application. There has been much debate within academia as to whether it is possible to attain a true reflection of a person's behaviour and beliefs through psychometric testing due to their reliance on self-report either from a participant or a person on behalf of a subject. However, they have become widely used tools within many settings such as healthcare, psychology and corporate business to aid understanding another's internal world or "measurement of the mind" as proposed by Breakwell et al. (2000, p. 271).

One area which has seen the development of many psychometric instruments is in relation to measuring social norms (Bem, 1974; Spence & Helmreich, 1980; Villemez & Touhey, 1977). Cialdini and Trost (1999) stated that social norms are standards and rules which can guide or constrain a person's behaviour. Therefore, a person learns what is expected from them based on their social interactions and observing others in the society in which they live. Mahalik (2000) proposed that gender norms have the same properties as social norms, however, they specifically relate to masculine and feminine behaviour with the goal of guiding one's behaviour to conform with gender expectations. He suggested that these gender norms develop in a similar way, through observation of behaviour within society and learning what is expected from you.

This chapter of the thesis will provide an overview of the Gender Role Norms Model and the Conformity to Masculine Norms Inventory (CMNI). It will then go on to provide a critique of a more recent version of inventory – the CMNI-46; the reliability and validity of the measure will be explored and discussed.

Gender Role Norms Model

Mahalik (2000) devised the gender role norms model where he suggested that sociocultural influences shape gender role expectations. He stated that dominant or powerful groups within society are the most influential at setting a precedence about how genders should behave and they do this through displaying descriptive, injunctive and cohesive norms. Mahalik's (2000) model suggests that group and individual factors can work as a filter in relation to how gender norms are communicated by the "powerful group" (Mahalik et al., 2003, p. 5) and received by others. Individual factors include socioeconomic status and racial identity, with Mahalik et al. (2003) suggesting that these individual and group factors can impact an individual's prosperity to conform to specific gender norms.

Mahalik et al. (2003) proposed the need for a psychometric tool which tests the conformity element of his model, stating that previous instruments focus on pathology associated with masculine norms, such as violence and power over women, rather than the reasons for conformity or nonconformity. Therefore, he developed a normative measure which aimed to assess a greater number of masculine norms compared to previous psychometrics (i.e., Brannon Masculinity Scale [Brannon & Juni, 1984]; Male Role Norms Inventory [Lenant et al. 1992]; Male Role Norms Scale [Thompson & Pleck. [1986]). In addition, he suggested that there was a need to "assess normative masculine norms more broadly through assessing affective, behavioural and cognitive dimensions of masculine gender norms" (Mahalik et al., 2003, p.5). Mahalik proposed that this could be measured through assessing whether males experience feelings such as pride or happiness when they conform to masculine norms (affective conformity) or hold beliefs about traditional male and female roles within society (cognitive conformity) as well as assessing their overall conformity. Furthermore, he stated that nonconformity should also be considered due to conflicting messages males are given within society, such as being respectful of women, but

also to display violence and dominance (Pleck, 1981; 1995). Mahalik suggested that by doing this he would be able to develop a tool which offers a more complex assessment of masculinity, with a particular focus on conformity and nonconformity, compared to previously proposed tools.

The development of the Conformity to Masculine Norms Inventory (CMNI)

Mahlik et al. (2003) developed the Conformity to Masculine Norms Inventory (CMNI) by firstly identifying masculine norms documented within the literature which were reported to be representative of beliefs held in the United States by dominant/powerful males (e.g., traditional masculine norms). The researchers suggested these norms will impact both males who identify themselves as similar to this group (i.e., males who hold traditional gender roles), as well as all other males (i.e., males with less traditional beliefs) within the United States as this is where gender role norms and expectations are constructed. Once these norms had been identified, a focus group containing male and female masters and doctoral students was conducted, with the aim of discussing and eliminating norms which did not solely apply to men. This process continued over an eight-month period and resulted in 12 masculine norms being selected and included in the CMNI: "Winning, Emotional Control; Risk-Taking; Violence; Playboy; Dominance; Primacy of Work; Power over Women; Self-Reliance; Disdain for Homosexuals; Physical Toughness; and Pursuit of Status" (Mahalik et al., 2003, p.6). The focus group then helped devise 12 items for each masculine norm resulting in 144 items in total. The authors piloted the questionnaire on three separate occasions to groups of males and females to obtain feedback about readability and to assess internal consistency. The researchers then asked three independent students to test the face and construct validity of the tool by asking them to make judgements about "(a) which of the 12 masculinity norms each item measured, (b) whether the items assessed conformity or nonconformity to masculine

gender roles, and (c) whether the items assessed affective, behavioural or cognitive dimension" (Mahalik et al., 2003, p. 7). Significant results were found for all three sets of judgements, with Kappa's ranging from .96 to .98 for question 'a' ascertaining which masculinity norm the item was measuring, .96 to 1.00 for 'b' categorising items as either conformity or non-conformity and .83 *t*0 .99 for 'c', categorising items as affective, behavioural or cognitive items ($p < .001$).

Following this pilot, the CMNI was developed which consisted of items associated with masculine social role norms and used a 4-point Likert scale (0 = strongly disagree – 3 = strongly agree) for the participants to mark their responses. It was felt that the Likert scale reflected the four statues proposed in Mahlaik's (2000) original model regarding conformity; (a) = extreme conformity, (b) = moderate conformity, (c) = moderate nonconformity, and (d) = extreme non-conformity (p. 4).

Mahalik et al. (2003) administered the final psychometric test to 752 male American college students and found support through implementing a principle-axis extraction technique for eleven of the twelve masculinity norms. Physical Toughness consequently was removed due to these items lowering the percentage of variance that could be accounted for (variance with 12 norms was 42.6% compared to variance with 11 norms as 44%). This resulted in the total number of items being reduced to 132 and 11 masculine norms being included in the final CMNI. Next, the authors administered the psychometric to 450 women and found that "men scored significantly higher than women in the CMNI total score as well as in 9 of the 11 masculine norms factors" (Mahalik et al., 2003, p. 9). The researchers suggested that this result demonstrated that the CMNI was distinctively measuring norms associated with masculinity and suggested that the two norms which did not differentiate men and women ("Putting Work First" and "Pursuit of Status") could possibly be due to women in

their sample also being university students, and therefore they may have experienced similar societal messages about work and status as men. Following this, the CMNI was administered to 269 males along with three other tests which assessed masculinity. Results showed that the total CMNI score significantly correlated with these three psychometrics total scores. This finding demonstrates convergent validity, which refers to how closely a new scale is related to similar variables of the same construct. Finally, the authors administered the "CMNI to 157 men in order to examine CMNI scores in relation to measures of social dominance, aggression and desire to become more muscular" (Mahalik et al., 2003, p. 20). These three constructs have previously been found within the literature to be associated with stronger traditional masculine norms (Heaven, 1999; Pratto et al., 1994). It was found that Distain for Homosexuals was not related to social dominance, however, subscales which included women (Power over Women and Playboy) did. The aggression scores and the Risk-Taking subscale were not related, however males who wanted to be more muscular conformed to Winning norms. A final exploratory factor analysis (EFA) of the 11 masculine norms resulted in a further reduction of items from 132 to 94.

Revising the CMNI

Parent and Moradi (2009) were supportive of the clinical use of the CMNI which had been used in a vast range of research, including health risk behaviours (Liu & Lwamoto 2007), substance misuse (Mahalik et al., 2006), and adaptive behaviours such as exercising for those suffering from depression (Good et al., 2006). However, they stated that the psychometric tool needed further critical evaluation due to its limited examination since its development by Mahalik et al. in 2003. Parent and Moradi (2009) chose to complete a Confirmatory Factor Analysis (CFA) as this is recommended for assessing the structural stability of data in cross-sample measures (Worthington & Whittaker, 2006) following EFA.

Parent and Moradi (2009) noted that the original CMNI, as devised by Mahalik et al. (2003), included items with factor loadings of .40 and cross-loadings of .30 which could have subsequently impacted the strength of the tool. Parent and Moradi (2009) specifically highlighted weaknesses identified by both themselves and Mahalik et al. (2003) in the Dominance and Pursuit of Status norms which produced structural and reliability problems. Specifically, the Dominance subscale was found to have 8 items which loaded onto other masculine norms subscales; the 12 items did not meet the cut-off loading factor criteria (.40 - .43) and some of the items were not cross-loaded to an acceptable degree. Likewise, only four of the twelve original Pursuit of Status items were retained for similar reasons. Parent and Moradi (2009) suggested a reduction in size of the CMNI would benefit its current structural ambiguity and possibly increase completion rates, as the original length (94 items) was thought to lead to low response rates.

Parent and Moradi (2009) administered the CMNI to 229 males ranging from 18-45 years old and analysed the data using CFA to evaluate a model of fit (Kline, 2005; Worthington & Whittaker, 2006). To refine the psychometric, they retained items with .60 or greater loadings, resulting in 44 items being eliminated and two subscales (Dominance and Pursuit of Status) being removed. They further removed three items with the lowest loadings for Emotional Control and Distain for Homosexuals as these subscales had the most items within them. Consequently, this resulted in there being between 4-6 items per subscale and the overall instrument being reduced from 94 to 46 items; coining the revised measure name - CMNI-46.

There have since been five additional abbreviated versions on the CMNI produced: the CMNI-55 (Owen, 2011); the CMNI-29 (Hsu & Iwamoto, 2014); the CMNI-22 (Owen, 2011); the CMNI-11 (Mahalik et al., 2007); and the CMNI-30 (Levant et al., 2020). The CMNI-55

and CMNI-22 both used classical test theory (CTT) and selected subscales with the highest item loadings in the original CMNI to undergo a CFA; five subscales were selected in the CMNI-55 and two in the CMNI-22. Both of these shortened versions were unable to produce empirically sound results (Owen, 2011). The CMNI-29 used the CMNI-46 to conduct two CFA's, both of which resulted in poor fits. Hsu and Iwamoto (2014) then used the same dataset to produce EFAs and another CFA which is reported to be poor practice (Wothington & Whittaker, 2006) as this tends to inflate statistics. This resulted in two 8-subscale models, with the elimination of Primacy for Work; one containing 35 items and the other 29. It was reported that the 29-item version demonstrated acceptable fit to the CMNI-46, however, the 35 items model did not. The CMNI-11 was created by selecting the highest loading items from all 11 subscales in the CMNI. CFA results were not produced and therefore they were are unable to comment on whether the data measured the respondent's conformity to masculine norms. Finally, the most recent revised version of the CMNI, the CMNI-30 (Levant et al., 2020) used 10 of the 11 subscales introduced in the original CMNI, eliminating Dominance following an EFA which supports prior research which also found this subscale to produce broad, vague results (Mahalik et al., 2003; Parent & Modari, 2009). The CMNI-30 was reported to preserve the CMNI's variability of masculinity which was constructed by Mahalik et al. (2003) in the CMNI as it retains the most subscales and does so using a shorten version which may reduce participant fatigue. However, it must be noted that the CMNI-30 lacks significant empirical support due to its infancy in development and use. Therefore, the CMNI-46 continues to contain the most empirical support and use by practitioners and academia. As such, this version will be explored in more detail below.

Overview of the CMNI-46

As mentioned above, the CMNI-46 is a 46-item psychometric tool which attempts to measure a male's level of conformity to masculine norms by analysing participants' beliefs around nine masculine norms. Each of these masculine norms has between four to six items which attempt to measure the degree to which the respondent adheres to the norm. The nine masculine norms are as follows:

1. Winning; assessing the participant's focus on winning (six items).
2. Emotional Control; assessing the degree to which participants control their expression of emotion (six items).
3. Primacy of Work; assessing whether employment is endorsed as a primary focus in life (four items).
4. Risk Taking; the voluntary exposure to dangerous situations (five items).
5. Violence; assessing whether violence is endorsed as an accepted response to certain situations (six items).
6. Heterosexual Self-Presentation[8]; assessing the importance of being viewed by others as heterosexual and not gay (six items).
7. Playboy; assessing the endorsement of sexual activity with casual partners (four items).
8. Self-Reliance; assessing whether there is a reluctance to seek help from others and preference to rely on oneself (five items).
9. Power over Women; assessing a general perceive power and control over women (four items).

Participants are asked to score their answers using a 4-point Likert scale ranging from 0-3; 0 being strongly disagree – 3 strongly agree, in line with the CMNI. Higher total scores

[8] Change in terminology compared to the CMNI which named this subscale distain for homosexuals.

relate to higher levels of conformity to masculine norms; replicating other psychometrics within this area which also focus on total scores as indicators of strong masculine/traditional beliefs (Brannon Masculinity Scale, Brannon & Juni, 1984; Male Role Norms Inventory, Levant et al., 1992; Gender-Based Attitudes Towards Marital Roles Scale, Hoffman & Kloshka, 1995).

Critique of the CMNI-46

Level of Measurement

The level of measurement in the CMNI-46 is interval. The instrument asks participants to rate their agreeance to items using a four-point Likert scale, ranging from strongly disagree (0) to strongly agree (3). By applying a numerical value to the response options, the authors are able to interpret the respondents answers numerically which can increase utility during analysis (Field, 2009). It has also been suggested that by using continuous as opposed to dichotomous scoring, a researcher is able to measure an opinion with greater accuracy for a larger sample size, as continuous scoring does not lose information from participants who do not fit within the extreme answers (Stober et al., 2010).

The issue of self-report data

Psychometric testing which relies upon self-report measures have come under scrutiny within academia due to their reliance on a respondent's honesty when completing the questionnaire. Socially desirable responding has been investigated by researchers, with Paulhus (1994) stating that respondents can answer in unconscious (self-deceptive enhancement) or conscious ways (impression management). "Self-deceptive enhancement (SDE) refers to an unconscious positive bias in the participant's responding with an aim of protecting their positive self-esteem. Impression management (IM)" (Roth & Herberg., 2007,

p. 154) suggests the participant is consciously attempting to present themselves in a favourable way to others.

The individual completing a psychometric has the ability to manipulate their responses in a way in which they may deem appropriate based on the nature and use of the test. Therefore, there could be some uncertainty as to whether psychometric measures, such as the CMNI and CMNI-46, can truly capture a respondent's levels of conformity to masculine norms. In the CMNI, Mahalik et al. (2003) reported that the "Marlowe-Crown Social Desirability Scale (MCSDS) scores correlated significantly with the CMNI total score (r = -.34), the violence subscale (r = -.35), the playboy subscale (r = -.33), and the power over women subscale (r = -.32)" (Mahalik et al., 2003, p. 18). This suggests that the higher the respondent's scored within these subscales, the lower they scored for social desirability, as a negative correlation (r value) stipulates an increase in one scale is accompanied by a decrease in the other. It is possible that males with higher social desirability scores are demonstrating lower conformity to masculine norms, which would question the reliability of the CMNI.

However, there has been some support for the use of self-report measures when assessing sensitive topics where an individual may experience discomfort during interviews or other methods of research using a qualitative design. The use of self-reporting can offer anonymity and therefore promote truthful responses (McDonald, 2008). This therefore presents mixed concerns about the use of self-reporting, with some researchers finding that it can reduce honesty and others suggesting it may promote it.

Reliability

Internal reliability

Internal reliability refers to the consistency of scores across similar items within a psychometric measure. With reference to the CMNI-46, it is necessary to ensure that all

questions are measuring masculine norms. Parent and Modari (2009) assessed the reliability and validity of the CMNI-46 by administering the CMNI-46 to 229 male participants ranging from 18 to 45 in age "(*M*= 19.95, *SD*= 3.23, *Mdn*= 19.00)" (p. 179). They tested the internal reliability of the items using Cronbach's alpha coefficients, using Ponterotto and Ruckdushel's (2007) matrix for interpreting Cronbach alpha. The researchers reported that the "subscales ranged from .79 to .89, with a median value of .82" (Parent & Modari., p. 180), suggesting that (with a sample size of 229) all reliability estimates fell within the good to excellent ranges (Cortina, 1993).

Similarly, Parent and Moradi (2011) reported achieving Cronbach alpha's in the fair range for four items (15% of all items), moderate to good range for three items (12% of all items) and good to excellent range for 19 items (73% of all items). Moreover, Parent and Smiler (2013) administered the CMNI-46 to a sample of males and females and reported Cronbach alpha's over .70 for all subscales, other than the Power over Women scale in the female sample (.60). The authors reported that the Power over Women subscale received the lowest mean of any subscale (M= 0.51) and consequently could be demonstrating a floor effect which could impact the Cronbach alpha score.

Parent and Moradi (2009) reported that the analysis of Modification Indices (MI) suggested potential cross-loading between a Winning item ("winning is not my first priority") and Violence (MI = 20.26), however all other Modification Indices were notably smaller (below 16). They therefore concluded that MI did not suggest notable cross-loading issues nor call for model amendments. Overall, Parent and Modari (2009) stated that the findings supported the psychometric properties of the CMNI-46. Generally, the research for the CMNI-46's internal reliability has been positive and provided strong results demonstrating

the items and subscales are consistently measuring the same construct, masculine gender norms.

Test-retest reliability

Test-retest reliability refers to a measures ability to produce the same results when administered to the same people at two different occasions (Coolican, 2009). Researchers usually examine this by looking for correlations between test scores. If a test consistently produces the same results over time, the relationship between the tests is considered to be high and therefore demonstrates good test-retest reliability. Within the original development of the CMNI, Mahalik et al. (2003) examined the temporal stability of the CMNI by asking 40 participants to complete the CMNI two to three weeks after completing it a first time. In order to measure test-retest reliability, the researchers conducted a Pearson's correlation; the closer the respondents scores are on test one and test two, the more reliable the tool is considered to be. The coefficient score in a Pearson's correlation can range between 0 and1; the closer to 1 the score is, the higher the test-retest reliability will be deemed to be. Mahalik et al. (2003) found test-retest coefficients were: within the excellent reliability range for the CMNI total score (.95), Distain for Homosexuals (.96), and Emotional Control (.90); the good reliability range for Risk Taking (.88), Winning (.87) and Self-Reliance (.80); the acceptable reliability range for Violence (.76), and Power over Women (.74); questionable reliability range for Primacy of Work (.67); and poor range for Pursuit of Status (.51).

Since the development of the CMNI-46, test-retest reliability has not been re-examined and therefore the CMNI results may not apply this refined version. Also, the results from Mahalik et al. (2003) for the CMNI, should be viewed with caution due to the small sample size (N = 40) and short time frame between administering the tests. This may have resulted in a memory-effect which could have influenced the respondent's answers due to

them simply remembering their responses in test one and subsequently increasing the test-retest reliability. Consequently, the CMNI-46 lacks the evidence base to determine whether it has test-retest reliability and the results of the CMNI's should be considered with caution.

Validity

Face and Content Validity

"Face validity refers to the degree to which a test appears to the respondent to measure what it sets out to measure" (Holden, 2010, p. 1). Furthermore, face validity is concerned with questions such as: is the test content appropriate, relevant and meaningful to the aims of the topic in hand? Content validity differs as it asks experts to rate whether the content of a test is suitable for the topic. Lawshe (1975) developed a method of measuring content validity by asking raters to come to an agreement about how essential a particular item is using the criteria: 'essential'; 'useful but not essential'; or 'not necessary'. Lawshe (1975) suggested that if more than half of the raters decided an item was essential then the item achieved at least some content validity.

Mahalik et al. (2003) asked three independent judges to rate the items in the CMNI, assessing which of the masculine norms the item measured, whether the items were assessing conformity or non-conformity, and if the items were within the affective, behavioural, or cognitive dimensions. Kappa values were attained from the three judges, all of which resulted in values falling within the perfect (.81-1.0) range (Landis & Koch, 1977). The kappa values for categorising items into subscale norms was .98; categorising items as either conformity or non-conformity which ranged from .97 to 1.00 and .83 to .99 for distinguishing whether they were affective, behavioural or cognitive dimensions. The authors concluded that these "kappa results provided evidence" of both "face and content validity for the CMNI" (Mahalik et al., 2003, p. 7), as the judges were able to reliably differentiate items.

Parent and Modari's (2009) CMNI-46 used the same subscales and items as the original CMNI, however, as outline above, they eliminated some items in reducing the size of the instrument. Parent and Modari (2009) did not revisit investigating whether the CMNI-46 subscales and items had face validity, and relied on the initial data published by Mahalik et al. (2003). This is problematic because the CMNI-46 is relying on data from an older psychometric and therefore lacking its own body of research supporting its validity. Whilst Mahalik et al. (2003) found support for the subscales and the items, this was only by three independent judges. Face validity as well as content validity need further investigation in order to strengthen the CMNI-46's evidence to assess validity.

Concurrent validity

Concurrent validity refers to the degree to which a test has similar outcomes or results as other established tests within its field (Coolican, 2009). Parent and Modari (2011) compared the scores of the CMNI-46 with Levant et al.'s (1992) Male Role Norms inventory (MRNI) - specifically the Homophobia, Heterosexual Self-Presentation and Attitudes towards Sex subscales - to establish concurrent validity. They also compared the scores of Hoffman and Kloska's (1995) Gender-Based Attitudes Toward Marital Roles Scale (GBATMR) with the Power over Women subscale as the GBATMR assesses the endorsement of traditional gender roles. Finally, they compared the scores of Brannon and Juni's (1994) Brannon Masculinity Scale with scores produced by the Emotional Control, Primacy to Work, Violence and Winning subscales on the CMNI-46.

Mahalik et al. (2003) reported finding correlations which ranged from .24 to .94, *Mdn*= .43, and stated that the majority of the subscales correlated with masculinity norms produced across differing masculinity constructs and therefore indicated concurrent validity. However, it must be noted that when adhering to Cohens (1991) coefficients guidelines, Self-

Reliance (r = .24) and Winning (r = .28) fell within the low range, suggesting the CMNI-46 does not produce results which can be captured within other instruments measuring masculinity. Therefore, further research is needed to establish whether the CMNI-46 achieves concurrent validity across all of its subscales.

Predictive validity

Predictive validity refers to a test's ability to predict specified, future outcomes (Elia & Stratton, 2011). Predictive validity has not been investigated, neither within the original CMNI, the refined CMNI-46, nor literature surrounding its use. This is possibly due to the psychometric not attempting to make a prediction for the future regarding, for example, an individual's behaviour. However, the CMNI and CMNI-46 have been used in health research, particularly focusing on males accessing services when they are physically or mentally unwell (Burn & Ward, 2005; Mahalik et al., 2006; Mahalik et al., 2007). This research has suggested that males with high levels of conformity to masculine norms, measured on the CMNI-46, do not access services as quickly as males with lower conformity levels (Lenvant & Wimer, 2014). Although a prediction of behaviour is yet to be established within research using the CMNI-46 pertaining to sexual consent, the CMNI-46 could be used as an indicator of behavioural styles and potential health risks. By using the CMNI-46 in this way in the future, it could help to develop an understanding of its predictive validity.

Construct validity

Construct validity refers to whether a test measures what it set out to measure. Messick (1989) defines construct validity as "an integrated evaluative judgement of the degree to which empirical evidence and theoretical rationales support the appropriateness of inferences and actions based on test scores" (p. 89). When Mahalik et al. (2003) initially devised the CMNI, they assessed male social norms produced within the literature (Brannon

& David, 1976; Eisler, 1995; Eisler & Skidmore, 1987; Lazur & Majors, 1995; Levant, 1992; Mahalik, 1999; O'Neil et al., 1986). This allowed for a substantial list of male social norms to be devised, all of which had been empirically tested and discussed within the previous literature. Through their elimination process as referred to above, they reduced the final item total to 94.

Parent and Modari (2009) completed a CFA on the CMNI items and excluded the items with the lowest factor loadings, with the cut-off criteria being set at .70. They reported that the Cronbach alpha coefficients became suitable following the deletion of low loading items and subscales. They also reviewed the content of the excluded items against retained ones to detect whether the deletion process had resulted in the loss of unique data. It was found that conceptual content of all eliminated items were incorporated in retained items. Therefore, concluding that the test continued to maintain the conceptual meaning of the CMNI throughout the CMNI-46's reduced nine subscales.

Parent and Modari (2009) argue that the removal of the Dominance and Pursuit of Status subscales increased the construct validity as they did not correlate with any of the other subscales, nor did they show a gender difference when completed by males and females, therefore raising questions about their validity as a masculine norm. Rochelle and Yim (2014) also carried out CFA on data collected from a Chinese sample who were given a translated CMNI-46. They completed chi square statistics and found that the correlated subscales model fit the data better than the uncorrelated and one factor models. It was also found that all items loaded onto the corresponding subscales other than one (Emotional Control item, "I bring up my feeling when talking to others", p. 18). However, Rochelle and Yim (2014) also found that five items failed to meet a .30 loading cut off criteria and suggested this may mean that these items are not culturally relevant. These findings, along with Parent and Modari's (2009)

findings suggest that the CMNI-46 has sufficient construct validity, i.e., it appears to be measuring participant's conformity to masculine norms.

Appropriate Norms

Appropriate norms of a test are derived during the development of the tool in order to give psychological meaning to a respondent score. Researchers do this by administering the test to a sample of people whom they believe represent the target population of this test and examine their results to determine norms which represent participant's behaviour, beliefs or attitudes. Kline (2000) suggests a sample size of 500 is sufficient to reduce standard errors. The demographics of participants used by Mahalik et al. (2003) in the initial development of the CMNI was mostly Caucasian, heterosexual college students residing in the United States. Similarly, Parent and Modari (2011) also used primarily a male, Caucasian, heterosexual, college student sample in their study of the CMNI-46. This could be seen to limit the generalisability of these initial findings as the sample was not representative of the wider population.

Mahalik's (2000) Gender Role Norms Model could argue that the norms displayed within this population may reflect the norms of powerful groups, however, the model also suggests that conformity to these norms may be impacted by ethnicity and socioeconomic status. Levant et al. (2015) used a sample containing both students and older adults and reported their results demonstrated that their diverse, older sample were less likely to endorse traditional masculinity ideology. Therefore, results pertaining to college student samples must be viewed with caution as it has been argued that these lack demographic diversity so are not representative of the wider adult population (Gallander et al., 2001; Sears, 1986).

In order to increase the generalisability and use of the CMNI-46, it needs to be evaluated across diverse sample ranges (Parent & Modari, 2009). Rochelle and Yim (2014)

found that the overall reliability of the CMNI-46 was lower compared to western studies and suggested this was the result of diversity in masculine norms across cultures. Smiler (2006) reported that masculine gender norms are not exclusively applicable to men and may prove useful when assessing women's conformity to norms. Therefore, it is suggested that research is conducted using a more diverse sample population.

Conclusion

There are multiple studies regarding the rationale for the development and refinement of the CMNI in order to form the CMNI-46. A gap within the literature was highlighted by Mahalik (2000) in relation to developing a tool which measures an individual's conformity or nonconformity to masculine norms. The initial CNMI gained support for its ability to measure this (Liu & Lwamoto, 2007; Tager & Good, 2005) and the CMNI-46 has achieved further support in its refinement methodology and ability to maintain construct stability within its subscales.

However, it is of note that the literature in support of the CMNI-46 relies heavily upon the data collected in 2003 by Mahalik and team when devising the CMNI. It can be argued that the CMNI-46 needs additional testing in order to better evidence its reliability, validity and generalisability. As it stands, the CMNI-46 primarily represents norms derived within male, Caucasian, heterosexual, college student samples and would benefit from updating its data norms to increase its generalisability to diverse populations. The CMNI-46 also lacks test-retest data as it adopts results produced by Mahalik et al. (2003) which, as discussed above, should be viewed with caution. In addition, it is suggested that test-retest studies are conducted on the CMNI-46 using a larger sample size (>N= 40) with longer time periods between the two tests in order to gain an accurate picture regarding this aspect of reliability of the measure.

Additionally, further investigations of the CMNI-46's construct validity would also be of use in judging the extent to which inferences can be made about an individual based on their score. As it stands, information regarding construct validity of the measure relies heavily upon data collected by Mahalik et al. (2003) nearly two decades ago which may now be outdated; the measure may benefit from being adapted to be in line with current masculine norms. Therefore, this critique has highlighted that there is good reliability and validity for the CMNI-46 as the scores can be seen to be indicative of an individual's conformity to masculine norms. However, its findings should also be viewed with caution as more research needs to be done and potentially refinements made in order to increase its accuracy.

CHAPTER FIVE

DISCUSSION

The aim of this thesis was to expand on existing research regarding how men interpret behaviours concerning sexual consent during heterosexual encounters. More specifically, it examined men's perceptions of nonverbal behaviours, and considered how these behavioural cues were interpreted as indications of a women's sexual interest. It further explored the role of hypermasculinity and questioned whether hypermasculine men were more likely to overestimate sexual likelihood. This chapter summarises the main findings outlined within the systematic literature review, empirical research study, and critique of the Conformity to Masculine Norms-46 (CMNI-46, Parent & Modari, 2009). It concludes with consideration of the strengths and limitations of this body of work, implications for practice, and directions for future research.

Chapter Two: Systematic Literature Review

Chapter two presented a systematic literature review of studies that have attempted to measure men's interpretations of nonverbal behaviours during sexual interactions with women. An initial literature scope in April 2018, and subsequent searches in February 2021 and May 2022, did not identify existing systematic literature reviews investigating male interpretations of nonverbal behavioural cues and consent.

The inclusion specifications outlined that the review must include articles using quantitative or mixed research methods, clearly state what nonverbal behaviours the authors were measuring within the methodology and/ or results sections, and include male participants. Two hundred and sixty-seven studies were identified during the initial title screening; however, only nine of these met the inclusion criteria (Appendix B) and were included in the final review.

The review found that there are gender differences in interpretations of nonverbal cues displayed by their partner during heterosexual sexual interactions. Generally, the studies

found that men overestimated sexual interest displayed by their partner (Humphreys, 2007; King et al., 2021; Kowalski, 1992; Newstorm et al., 2020; Rerick et al., 2020; Willan & Pollard, 2003). Differences were found in how participants perceived specific behaviours, for example, Hickman and Muehlenhard's (1999) study found that neither men nor women used statements about levels of intoxication, such as "I am really drunk" (Newstorm et al., 2020, p. 457) to indicate consent to sexual intercourse. Whereas, Newstorm et al. (2020) found that men were more likely than women to perceive being drunk to be indicative of their partner wanting to proceed with sexual intercourse. Jozkowski et al. (2019) found that women in their study would display sexual consent by offering no response, however, this finding differs from previous studies that suggested that non-response and silence can be indications of a women rejecting sexual intercourse (Beres, 2010).

Gender differences were found for indications and perceptions of nonverbal behaviours. Men were found to endorse nonverbal behaviours to indicate their consent more so than women (Jozkowski et al., 2014). Whereas results from female participants found that women are more likely to demonstrate their consent through a both verbal and nonverbal cues (Jozkowski et al., 2014). Kowalski's (1992) study found that as nonverbal behaviours increased with perceived sexual connotation (e.g., holding hands, kissing, and a woman offering a man a back massage), the more likely both men and women were to rate these behaviours as indicative of a woman wanting to proceed with sexual intercourse. However, men were more likely than women to perceive all nonverbal behaviours included in this study as indicative of a woman displaying sexual interest, whereas women considered low level nonverbal behaviours (e.g., eye-contact, hand touching and slow dancing) as friendly behaviour rather than indications of sexual interest.

Relationship length was found to reduce to the need for explicit (i.e., clear, verbal) consent (Humphreys, 2007), with results showing that individuals in longer established relationships did not require the same levels of clarity around consent as opposed to newly acquainted couples. Humphrey's (2007) study demonstrated changes in the expectations for behaviour around consent, based upon how familiar a couple is with one another. Other research has also found that longer-term couples report being able to better interpret their partners' verbal and nonverbal cues when initiating sexual contact (Jozkowski & Peterson, 2013; O'Bryne et al., 2008). However, six of the studies included within this review found that men are more likely to overestimate sexual interest based upon verbal and nonverbal cues (Hickman & Muehlenhard, 1999; Humphreys, 2007; Jozkowski et al., 2014; Kowalski, 1992; Newstorm et al., 2020; Willan & Pollard, 2003). These findings suggest that particularly men would benefit from taking greater caution when interpreting sexual cues from women. Rerick et al.'s (2020) study identified that single men tended to overestimate sexual intent when they are sexually aroused, compared to non-aroused single men. If these findings were applied to a social context, it could be implied that single men may be at increased risk of misinterpreting sexual intent influenced by their own sexual arousal and attraction to a woman. Therefore, according to the research discussed, the risk of overestimating sexual intent from a female partner remains even in longer term relationships; the main identified difference is how consent is communicated.

These findings were considered in relation to the wider consent literature and miscommunication theory (Tannen, 1992) as there is growing support for the notion that men and women can display and interpret nonverbal behaviours differently during sexual interactions. Research has shown adherence to traditional masculine beliefs, such as token resistance and rape myth acceptance, is associated with poor attitudes about obtaining consent

and increased rape proclivity (Canan et al., 2018; Chaplean & Oswald, 2010; Hammond et al., 2011). Previous research has also found that hypermasculine men are more likely to display negative views around obtaining consent and therefore are at higher risk of displaying sexual aggression (Malamuth et al., 1996; Parrott & Zeichner, 2003). However, Shafter et al.'s (2018) study did not support this and instead found that hypermasculinity did not significantly impact a man's behaviour around obtaining consent. This highlights the need for more recent research on hypermasculinity and consent behaviours.

The systematic literature review within this thesis found that eight out of nine included studies used solely university (college) student samples, which restricts the generalisability of these findings to the wider male population. All six of the studies who reported ethnicity demographics, included predominantly White-Caucasian samples, which further restricts the generalisability of the findings from this review. It is acknowledged that the beliefs and behaviours discussed in the review are of American young adults of primarily Caucasian ethnicity who reside in Western society, and therefore issues of generalisability of the findings to different ethnicities, socioeconomic statues, and age groups were considered.

Eight out of nine included studies incorporated fictional vignette methodology (written and/ or visual images) and the methodological implications of using non-real-life situations were discussed. Some of the studies attempted to increase internal validity by wording written vignettes in first person perspectives (Newstorm et al., 2020; Rerick et al., 2020; Willian & Pollard, 2003) and only including participants in the results who indicated that they could envision themselves in the vignette scenario (Hickman & Muehlenhard, 1999). The review highlighted difficulties in collecting data relating to consent behaviours as researchers are often relying on participants to be truthful and display low levels of social desirability when asking for reflections of how they might behave. Notably, social desirability was not

measured within any of the studies included in the review. Recommendations were made regarding improving external validity of future research, including wider age demographics, and incorporating different research methodologies.

Chapter Three: Empirical Research Study

Taking into consideration the findings from chapter two, chapter three presented an empirical study that used a large age demographic of men with the aim of increasing generalisability of results to the wider American male population. The study collected data from 888 American men between the ages of 18 and 55 or older, who were predominantly heterosexual (91%) and in employment (73%). This sample differed from those used in many of the previously mentioned studies that represented student samples.

The study replicated elements of Kowalski's (1992) study and presented the participants with a written first date vignette between a heterosexual couple. The participants were shown a video clip of the couple at the women's house and specific nonverbal behaviours, as defined by Kowalski (1992), were manipulated within the design. The participants were randomly assigned to either watch a video including low level nonverbal behaviours (e.g., maintain eye contact; holding hands) or medium level nonverbal behaviours (e.g., the woman touches the man's thigh; the couple kiss). At no point within the study were the participants prompted to recognise the nonverbal behaviours. Instead, they were asked to recall the video and rate the likelihood that the couple had sexual intercourse that night. The participants were randomly assigned to answer the sexual likelihood question before or after recalling the video, to control for an order effect. Additionally, the participants were randomly assigned to complete the CMNI-46, to measure their self-perceived masculinity, either at the start of end of the experiment, therefore creating a 4x4 design. The participants results were

interpreted along with self-reports of their sexual experience and demographic information (e.g., age and ethnicity).

A multiple regression model showed that masculinity scores and sexual experience ratings predicted higher perceptions of sexual likelihood. In other words, the more masculine the male perceived themselves to be (e.g., CMNI-46 score) and the greater their sexual experience, the more likely they were to suggest that the hypothetical couple had consensual sexual intercourse that evening. This trend was found across both the low and medium nonverbal behaviours groups; however, the participants were significantly more likely to predict sexual intercourse took place in the medium condition. This finding suggests that men perceive kissing and thigh touching, more so than holding hands and maintain eye contact, to be indicative of sexual interest that could result in sexual intercourse that same evening.

No significant differences were found as a result of the order in which participants completed the study. Participants in the 18-24 years group (n= 74) rated their sexual experience as significantly less than participants in all of the older age groups (e.g., 25-34, n= 272; 35-44, n= 270; 45-54, n= 138; 55+, n= 134). Therefore, the sample was considered to be formed primarily of sexually experienced men (n= 814) who were forming decisions about sexual intent based upon their own lived experiences and perceptions of nonverbal behaviours. Sexual experience was positively correlated with how the participants viewed behaviour of British men and women. Therefore, showing that participants who rated their own sexual experience as high, also considered others to behave in a similar way to them, demonstrating a false consensus bias[9] (Ross et al., 1977).

[9] "Consensus bias is the overuse of self-related knowledge in estimating the prevalence of attributes in a population" (Krueger & Clement, 1994, p. 596).

The results supported previous findings that men overestimate sexual interest from female partners (Abbey, 1982; Murray et al., 2017; Perilloux & Kurzban, 2015). They also highlight that thirty years after Kowalski's (1992) study, men continue to perceive low and medium nonverbal behaviours to be indicative of sexual interest that could result in sexual intercourse that same night. This demonstrates the need for continued intervention around understanding connotations of nonverbal behaviour, in order to reduce potential behaviours conducive to rape or sexual assault behaviours, and misinterpretations, as suggested in Tannen's (1992) miscommunication theory.

A limitation of the study was that it did not measure participants' arousal to the visual and written stimuli presented within the design. Therefore, it remains unknown how an individual's level of arousal may impact decisions and interpretations they make about nonverbal behaviour during sexual encounters. Chapter three discusses the current consent literature and highlights that this is generally not measured within the literature to date, and recommends that future research considers the impact of arousal during experimental designs measuring interpretations about consent.

The study discussed areas for additional research, including the need for further exploration of hypermasculinity and interpretations of nonverbal behaviours. Improvements were discussed such as including hypothetical characters of similar ages to the participants, as this may account for any stereotypes held by the participants about sexual promiscuity. Furthermore, research investigating the behaviour of non-heterosexual individuals is required as it remains unclear as to whether findings such as these are relevant to heterosexual encounters.

Chapter Four: Critique of a Psychometric Measure

Parent and Modari's (2009) Conformity to Masculine Norms Inventory-46 (CMNI-46) is a refined version of Mahalik et al.'s (2003) original Conformity to Masculine Norms Inventory (CMNI). The original CMNI consisted of 94 items pertaining to 11 masculine norms following extensive research by Mahalik and his team investigating masculine norms within American society. Much of this research was derived from university aged samples, however, Mahalik et al. (2003) considered these findings to be representative of, and therefore generalisable to, the wider American population.

Parent and Modari (2009) reduced the number of items included within the questionnaire to devise the CMNI-46. The authors completed Confirmatory Factor Analysis (CFA) on items relating to masculine subscales and eliminated items with low cross-factor loadings. Consequently, two masculine subscales were removed from the psychometric (e.g., Dominance and Pursuit of Status) and the remaining masculine subscales included between four to six items as opposed to eight or over. This significantly reduced the length of the CMNI resulting in the shortened, 46 item version of the psychometric.

Empirical support has been found for the CMNI-46, demonstrating strong internal reliability and construct validity (Parent and Modari., 2011). The current critique recommended that further validation of the tool is needed with more current data as opposed to Mahalik et al.'s (2003) original data set. Mahalik et al.'s (2003) original data relied heavily upon a student sample and therefore generated masculine norms based upon these participants. The CMNI-46 has not been validated with a non-student sample. Therefore, its generalisability to men of older age ranges remains unknown. This could improve the reliability of the psychometric and strengthen the content and face validity. Additionally, the CMNI-46 would benefit from test-retest data and generally more analysis into its concurrent and predicative validity.

Strengths and Limitations of this Thesis

This thesis has made an important contribution to the consent literature by synthesising existing research examining perceptions of nonverbal behaviours during heterosexual interactions, which heretofore had not been done. It has provided support for the growing literature around understanding nonverbal behaviours during sexual encounters and considered how these may result in sexual aggression.

This thesis demonstrated that much of the literature around consent interpretation has previously been completed using student samples and therefore its generalisability to the wider population is questionable (Humphrey, 2007; Jozkowski et al., 2014; King et al., 2021). The empirical study collected data on a wider age demographic of men residing in America and therefore differs from previous studies within this research area. This study can be used to help understanding of how men of different ages residing within America may interpret nonverbal behaviours during heterosexual interactions. However, it must be noted that although the age range was broader than previous studies, it included primarily White-Caucasian participants, which will limit generalisability to other ethnicities.

This thesis has not included research examining factors that may influence one's perceptions; such as how an individual's decision-making process around sexual consent may be altered when intoxicated. It has deliberately not included this research due to the vast amount of studies that investigate substance use and rape proclivity, and instead, examined how nonverbal behaviours are interpreted without the influence of other factors. It was felt that a better baseline understanding of how nonverbal behaviours are perceived during sexual encounters would be beneficial, as there is little research focusing primarily on nonverbal communication at this time. This can then be developed into research that focuses on how perceptions of nonverbal behaviours change when sober or intoxicated.

The thesis has not included research or findings from non-heterosexual relationships and therefore this limits the generalisability of the findings to LGBTQ+ communities. It would be of interest to understand whether the miscommunication theory applies to same-sex relationships and if so, what is the understanding of sexual aggression in these circumstances? This was not considered within this thesis, which instead aimed to strengthen the growing knowledge around nonverbal behaviours during heterosexual encounters.

Similarly, studies investigating individual differences of genders as a whole were not included in this thesis, however, would strengthen the research within this field. This thesis added to the wealth of research that has found gender differences exist in communication. However, it may be beneficial to investigate individual differences in displaying or interpreting nonverbal behaviours and how these could be associated to sexual violence.

The empirical study used vignettes written in third person to examine consent perceptions. This could have impacted the external validity of the findings as discussed within chapters two and three. Therefore, it could be argued that their perceptions of consent may not be representative of the participants' own behaviours and could be informed by potential stereotypes they may hold about the people portrayed in the vignette. Further investigation of possible stereotypes that participants may have in regards to young adults is required in order to strengthen the reliability and generalisability of the study's findings.

This thesis could also have compared the CMNI-46 to other hypermasculinity scales, such as Pleck and Sonenstein's (1994) Male Role Norms Scale (MRAS) or Doss and Hopkins's (1998) Multicultural Masculinity Ideology Scale (MMIS), in order to establish if there are more suitable psychometric measures that can be used to measure conformity to masculine norms. However, due to time constraints, the CMNI-46 was the only scale evaluated and included within this thesis, as the author provided the psychometric and scoring

guide upon request. Finally, limitations were noted within in each of the chapters and the need for more research including samples from different ethnicities, ages, and non-student populations was consistently emphasised.

Implications for Practice

As previously discussed, a key recommendation from this thesis is that further investigation and understanding is required about how consent can be universally communicated and understood. This could impact UK crime statistics as it is often the case that a jury is left deciding whether consent was communicated, perceived, and acted upon within rape trials. It would also weaken a potential defence of miscommunication, as suggested within Tannen's (1992) miscommunication theory.

Previous literature has found that nonverbal behaviours are a key feature of expressing and perceiving consent (Beres, 2010; Jozkowski & Peterson, 2013; Marcantonio & Jozkowski, 2018; Muehlenhard et al., 2016; However, psychoeducation programmes (e.g., The Anti-Violence Project, 2006; "no means no" and "yes means yes" campaigns) focus on teaching women how to clearly indicate their consent (i.e., in assertive, non-ambiguous ways). The implications of these messages feed into sexual script theory (Simon & Gagnon, 1986) and target women to develop their communication of consent; absolving men of their responsibility if it goes wrong. Due to persistent high numbers of campus sexual assault (Bedera, 2021), universities have shifted the focus of psychoeducational programmes to assisting both men and women in obtaining sexual consent during sexual interactions (Borges et al, 2008). However, there continues to be evidence that men overestimate sexual interest and this could potentially increase the risk of sexual aggression towards women (Zinzow & Thompson, 2019). If miscommunication is a feature in sexual aggression, as some of the literature suggests, better education around interpreting nonverbal behaviours is required.

The literature also appears to suggest that men and women consider obtaining verbal consent as uncomfortable and/or it can decrease the likelihood of intercourse taking place as it is considered awkward (Beres, 2014; Shumlich & William, 2020). Instead, individuals report using a combination of verbal and nonverbal behaviours to form decisions about consent confirmation and display their own sexual interest (King et al., 2021; Muehlenhard et al., 2016). Efforts should be made to normalise conversations around consent and approach such conversations in an educational rather than shaming manner (e.g., "Tea and Consent" video developed by the Thames Valley Police, 2015).

There continues to be little understanding about how interpretations of nonverbal behaviours are acquired and how accurate these perceptions are. Recent research has found that adolescent boys and girls perceived "nonverbal methods of communication as sufficient to request, provide, or deny sexual consent" (Brady et al., 2022, p. 19; Righi et al., 2019). Therefore, educational efforts should focus on teaching adolescents and young adults about connotations applied to nonverbal behaviours and how to respond appropriately to this. This learning could be included in sex education taught by educational establishments during childhood, adolescents, and early adult years. Such education could ultimately impact how men in particular respond appropriately during sexual interactions with women throughout their life.

Directions for Future Research

It is recommended that future research includes more integral investigation of how connotations attached to nonverbal behaviours are acquired and reinforced and how these translate to sexual interactions. Previous qualitative studies have attempted to measure this (Beres, 2014; Peterson & Muehlenhard, 2007; Shumlich & William, 2020), with researchers interviewing samples in order to understand how they formed decisions about consent.

However, there continues to be a need for more empirical research to understand how perceptions of consent are developed and maintained across different populations (e.g., non-student samples). Research has emphasised the negative impact fraternities can have on some men's behaviours (Humphrey & Khan, 2000; Martin & Hummer, 1989; Sanday, 1990; Stombler, 1994), and therefore it would be interesting to explore understanding of consent and/or propensity to display intentional or unintentional sexual aggression in samples of men who did not attend university or join fraternities. Finally, as discussed above and in chapter three, arousal has been largely neglected from the consent literature, yet arousal theories and research such as the Yerkes-Dodson's Law (Yerkes & Dodson's, 1908) and the misattribution theory (Schachter & Singer, 1962) have highlighted the impact that different states of arousal can have on decision making and task performance (Canton et al., 1975). Therefore, it is imperative that this is considered within the consent literature as these studies primarily include materials designed to evoke emotional responses from participants.

Conclusion

This thesis has achieved its aims by investigating how American men from a larger age demographic perceive specific nonverbal behaviours during sexual interactions. The empirical study found support for previous findings by Kowalski (1992) and demonstrated that American men still interpret specific nonverbal behaviour displayed by women (e.g., kissing and a woman touching a man's thigh) as indicative of consent for sexual interactions. Similar findings were presented within chapter two, which showed that men generally overestimated the likelihood of sexual interest from a female partner based upon interpretations they made about nonverbal behaviours. Both chapters highlight the importance of having a clear, consistent understanding about connotations associated with nonverbal

behaviour during sexual interactions to reduce the possibility of miscommunication. However, it appears that additional factors such as hypermasculinity may impact the interpretations some men make about sexual interest and likelihood of sexual intercourse. Furthermore, chapter two emphasised the need for wider age demographics within the consent literature, in order for this to be more representative of the general population, and chapter 3 produced findings with participants ranging from 18-55+ years. Therefore, this thesis has contributed to the growing literature around perceptions of consent, and specifically demonstrated the need for further focus on the role of nonverbal behaviours. It is hoped that the recommendations to develop education on the use of nonverbal behaviours is included in psychoeducation programmes taught across all educational environments in order to embed healthy beliefs around consent from a young age.

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Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Punishment: Issues and experiments,* 27-41. DOI: 10.1037/h0073415

Zeigler-Hill, V., Enjaian, B., & Essa, L. (2013). The role of narcissistic personality features in sexual aggression. *Journal of Social and Clinical Psychology, 32*(2), 186-199. DOI: 10.1521/jscp.2013.32.2.186

Zernechel, A., & Perry, A. L. (2017). The final battle: Constructs of hegemonic masculinity and hypermasculinity in fraternity membership. *College Student Affairs Leadership, 4*(1). http://scholarworks.gvsu.edu/csal/vol4/iss1/6

Zimmerman, D. W., & Zumbo, B. D. (1993). Rank transformations and the power of the Student t test and Welch t'test for non-normal populations with unequal variances. *Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale*, *47*(3), 523. DOI: 10.1037/h0078850

Zinzow, H. M., & Thompson, M. (2019). Beliefs about consent and sexual assault perpetration in a longitudinal study of college men. Violence and victims, *34*(3), 548-565. https://doi.org/10.1891/0886-6708.VV-D-18-00014

APPENDICES

Appendix A: Search Syntax

Web of Science

Search dates; all years – 2nd week May 2022

Search History

Set	Results	Save History / Create AlertOpen Saved History	Edit Sets	Combine Sets AND OR Combine	Delete Sets Select All Delete
# 13	**321**	#6 AND #3 AND #2 AND #1 *Indexes=SSCI Timespan=All years*	Edit		
# 12	**1,588**	#6 AND #2 AND #1 **Refined by: DOCUMENT TYPES:** (ARTICLE OR REVIEW) AND [excluding] **WEB OF SCIENCE CATEGORIES:** (PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH OR ONCOLOGY OR HOSPITALITY LEISURE SPORT TOURISM OR			

RESPIRATORY SYSTEM OR GERIATRICS GERONTOLOGY OR TRANSPLANTATION OR BIOCHEMISTRY MOLECULAR BIOLOGY OR GASTROENTEROLOGY HEPATOLOGY OR ENDOCRINOLOGY METABOLISM OR HEMATOLOGY OR NURSING OR VIROLOGY OR OBSTETRICS GYNECOLOGY OR ZOOLOGY OR ORTHOPEDICS OR PEDIATRICS OR COMPUTER SCIENCE INFORMATION SYSTEMS OR UROLOGY NEPHROLOGY OR NUTRITION DIETETICS OR IMMUNOLOGY OR ECOLOGY OR CARDIAC CARDIOVASCULAR SYSTEMS OR ENGINEERING BIOMEDICAL OR MICROBIOLOGY OR CELL BIOLOGY)

Indexes=SSCI Timespan=All years

# 11	**2,379**	#6 AND #2 AND #1 **Refined by: DOCUMENT TYPES:** (ARTICLE OR REVIEW) *Indexes=SSCI Timespan=All years*	
# 10	**2,417**	#6 AND #2 AND #1 *Indexes=SSCI Timespan=All years*	Edit

# 9	**560**	#3 AND #2 AND #1 *Indexes=SSCI Timespan=All years*	Edit
# 8	**321**	#7 AND #5 *Indexes=SSCI Timespan=All years*	Edit
# 7	**2,417**	#6 AND #4 *Indexes=SSCI Timespan=All years*	Edit
# 6	**1,499,219**	**ALL FIELDS:** (View* or perspective* or pereiv* or inten* or judgement* or willingness or opinion* or attitude* or perception or misperception) *Indexes=SSCI Timespan=All years*	Edit
# 5	**560**	#4 AND #3 *Indexes=SSCI Timespan=All years*	Edit
# 4	**5,995**	#2 AND #1 *Indexes=SSCI Timespan=All years*	Edit

# 3	**334,541**	ALL=(Behave* or communicat* or negotat* or refus* or miscommunicat*) *Indexes=SSCI Timespan=All years*	Edit
# 2	**336,059**	**ALL FIELDS:** (sex* or sexuali?*) *Indexes=SSCI Timespan=All years*	Edit
# 1	**80,055**	ALL=(consen* or non-consen*) *Indexes=SSCI Timespan=All years*	Edit

Ovid; Psych-Info

Search Dates; 1967 to May, Week 2 2022

Search Terms

16

15 and "Journal" [Publication Type]

1684

Advanced

15

12 and 13 and 14

2319

Advanced

14

(View* or perspective* or pereiv* or inten* or judgement* or willingness or opinion* or attitude*).mp. or *perception/ or misperception.mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]

1171654

Advanced

13

(consen* or nonconsen*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]

54387

Advanced

12

(sex* or sexuali$*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]

446433

Advanced

11

10 and "Journal" [Publication Type]

1684

Advanced

10

7 and 8 and 9

2319

Advanced

9

(View* or perspective* or pereiv* or inten* or judgement* or willingness or opinion* or attitude*).mp. or *perception/ or misperception.mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]

1171654

Advanced

8

(consen* or nonconsen*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]

54387

Advanced

7

(sex* or sexuali$*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]

446433

Advanced

6

5 and "Journal" [Publication Type]

491

Advanced

5

2 and 4

707

Advanced

4

1 and 3

6294

Advanced

3

(consen* or nonconsen*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]

54387

Advanced

2

(Behave* or communicat* or negotat* or refus* or miscommunicat*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]

334911

Advanced

1

(sex* or sexuali$*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]

446433

Advanced

ProQuest

Search Dates; All years (first publication dated 1961) – May week 2 2022,

Search terms

SLR FEB 2021 - Search 3Edit name

Searched for:

noft(sex* OR sexuali?*) AND noft(consen* OR nonconsen*) AND noft(View* OR perspective* OR pereiv* OR inten* OR judgement* OR willingness OR opinion* OR attitude* OR perception OR misperception) AND noft(Behave* OR communicat* OR negotat* OR refus* OR miscommunicat*)

Databases:

- Psychology Database

Notes:

All search terms together

Saved:

May 17 2022

Name:

SLR MAY 2022 - Search 2Edit name

Searched for:

noft(sex* OR sexuali?*) AND noft(consen* OR nonconsen*) AND noft(View* OR perspective* OR pereiv* OR inten* OR judgement* OR willingness OR opinion* OR attitude* OR perception OR misperception)

Databases:

- Psychology Database

Notes:

sex & consent & views etc

Saved:

May 17 2022

MAY 22 - Search 1Edit name

Searched for:

noft(sex* OR sexuali?*) AND noft(consen* OR nonconsen*) AND noft(Behave* OR communicat* OR negotat* OR refus* OR miscommunicat*)

Databases:

- Psychology Database

Notes:

Sex & consent & behaviour etc

Saved:

May 17 2022

Appendix B - Inclusion / Exclusion Criteria

Inclusion Criteria	Met? Yes / No / Maybe	Full Text Available	Comment
Does the study focus on issues of sexual consent; understanding, obtaining or interpreting verbal & non-verbal behaviour?			
Does the study include a male sample? (Male only sample or mixed sample producing separate results for both genders)			
Does the study include sufficient information regarding methodology & data collection.			
Does the study show examples of the questions and/or vignettes administered?			

** If yes to all the questions under Inclusion Criteria & Full Text can be obtained, then can be included in the review.

Exclusion Checklist

Exclude from review if;

- Sample is all female.
- Qualitative methodology used (including; interviews with participants, focus-group data collection, asking participants to produce written narratives).
- Full text is not obtainable within timespan.

Appendix C – Inclusion and Exclusion Table Following Methodology Screening

Author	Inclusion/ Exclusion	Comments
Abbey, A. (1982). Sex differences in attributions for friendly behavior: Do males misperceive females' friendliness?. *Journal of personality and social psychology,* 42(5), 830. DOI: 10.1037/0022-3514.42.5.830	Excluded	The author categorises nonverbal behaviours (flirtatious, promiscuous, seductive, likeable, considerate, interesting), however, does not specifically state what these behaviours are/ entail.
Anderson, P. B., & Sorensen, W. (1999). Male and female differences in reports of women's heterosexual initiation and aggression. *Archives of Sexual Behavior*, 28(3), 243-253. DOI: 10.1023/A:1018736326344	Excluded	The study included women only sample and focused on aggression female aggression.
Aries, E. J. (1982). Verbal and nonverbal behavior in single-sex and mixed-sex groups: Are traditional sex roles changing?. *Psychological Reports,* 51(1), 127-134.	Excluded	The study does not look at sexual encounters but gender roles in general. There is not any discussion around nonverbal behaviours.
Aronowitz, T., Lambert, C. A., & Davidoff, S. (2012). The role of rape myth acceptance in the social norms regarding sexual behavior among college students. *Journal of community health nursing*, 29(3), 173-182. DOI: 10.1080/07370016.2012.697852	Excluded	The study did not investigate nonverbal behaviour during sexual scenarios.
Baldwin-White, A., & Bazemore, B. (2020). The gray area of defining sexual assault: An exploratory study of college students' perceptions. *Social work,* 65(3), 257-265. DOI: 10.1093/sw/swaa017	Excluded	The study used a qualitative only design.
Baranowski, A. M., & Hecht, H. (2015). Gender differences and similarities in receptivity to sexual invitations: Effects of location and risk perception. *Archives of sexual behavior*, 44(8), 2257-2265. DOI: 10.1007/s10508-015-0520-6	Excluded	The study did not specifically examine the role of nonverbal behaviours in decision making around consent.
Bay-Cheng, L. Y., & Bruns, A. E. (2016). Yes, but: Young women's views of unwanted sex at the intersection of gender and class. *Psychology of Women Quarterly*, 40(4), 504-517. DOI: 10.1177/0361684316653902	Excluded	Qualitative design that included a women only sample.
Beres, M. A. (2007). 'Spontaneous' sexual consent: An analysis of sexual consent literature. *Feminism & Psychology*, 17(1), 93-108. DOI: 10.1177/0959353507072914	Excluded	Review of literature as opposed to a behavioural study.
Beres, M. A., Senn, C. Y., & McCaw, J. (2014). Navigating ambivalence: How heterosexual young adults make sense of desire differences. *The Journal of Sex Research*, 51(7), 765-776. DOI: 10.1080/00224499.2013.792327	Excluded	Qualitative design.

Bolinger, R. J. (2019). Moral risk and communicating consent. *Philosophy & Public Affairs*, 47(2), 179-207. DOI: 10.1111/papa.12144	Excluded	This paper discusses sexual consent and draws upon the literature, but does not present an empirical study.
Bufkin, J., & Eschholz, S. (2000). Images of sex and rape: A content analysis of popular film. *Violence against women*, 6(12), 1317-1344. DOI: 10.1177/1077801200006012002	Excluded	This study uses content analysis to study aggression towards women, as opposed to human participants and measuring their responses.
Burkett, M., & Hamilton, K. (2012). Postfeminist sexual agency: Young women's negotiations of sexual consent. *Sexualities*, 15(7), 815-833. DOI: 10.1177/1363460712454076	Excluded	Does not discuss the role of nonverbal behaviour when negotiating consent.
Byers, E. S., & Eno, R. J. (1992). Predicting men's sexual coercion and aggression from attitudes, dating history, and sexual response. *Journal of Psychology & Human Sexuality*, 4(3), 55-70. https://doi.org/10.1300/J056v04n03_04	Excluded	This paper does not explore nonverbal behaviour.
Chadha, K. (2020). Sexual Consent and Having Sex Together. *Oxford Journal of Legal Studies*, 40(3), 619-644. DOI: 10.1093/ojls/gqaa021	Excluded	The author does not present an empirical study, instead discusses the consent literature.
Conroy, N. E., Krishnakumar, A., & Leone, J. M. (2015). Reexamining issues of conceptualization and willing consent: The hidden role of coercion in experiences of sexual acquiescence. *Journal of interpersonal violence,* 30(11), 1828-1846. https://doi.org/10.1177/0886260514549050	Excluded	Uses female only sample and does not specify nonverbal behaviours portrayed during sexual interactions.
Dardis, C. M., Kraft, K. M., & Gidycz, C. A. (2021). "Miscommunication" and undergraduate women's conceptualizations of sexual assault: A qualitative analysis. *Journal of interpersonal violence*, 36(1-2), 33-61. https://doi.org/10.1177/0886260517726	Excluded	Qualitative design with women only sample.
Dolven, J. (2017). Rape, Jokes, Consent. *Studies in Gender and Sexuality*, 18(4), 274-276. https://doi.org/10.1080/15240657.2017.1383052	Excluded	This paper does not discuss nonverbal communication in relation to sexual consent.
Donat, P. L., & Bondurant, B. (2003). The role of sexual victimization in women's perceptions of others' sexual interest. *Journal of Interpersonal Violence*, *18*(1), 50-64. https://doi.org/10.1177/088626050223854	Excluded	The study uses a female only sample.
Dougherty, T., & Dougherty, T. J. (2021). *The scope of consent*. Oxford University Press.	Excluded	The author broadly discusses issues pertaining to consent and does not present an empirical study.
Dougherty, T. (2021). Sexual misconduct on a scale: gravity, coercion, and consent. *Ethics*, 131(2), 319-344. DOI: 10.1086/711211	Excluded	Discusses consent literature and does not measure nonverbal behaviours within a study.

Fernet, M., Hébert, M., Brodeur, G., & Théorêt, V. (2021). "When You're in a Relationship, You Say No, but Your Partner Insists": Sexual Dating Violence and Ambiguity Among Girls and Young Women. *Journal of interpersonal violence*, 36(19-20), 9436-9459. DOI: 10.1177/0886260519867149	Excluded	The study uses an adolescent female sample.
Ford, J. V. (2018). "Going with the flow": How college men's experiences of unwanted sex are produced by gendered interactional pressures. *Social Forces*, 96(3), 1303-1324.	Excluded	Does not specifically examine nonverbal communication.
Gamble, H. (2019). Acquiescing to the script: A panel study of college students' sexual media habits, endorsement of heteronormative scripts, and their hesitance toward resisting unwanted hookups. *Sex Roles*, 80(11), 707-723. DOI: 10.1007/s11199-018-0971-z	Excluded	The author does not specifically focus on nonverbal behaviours within sexual encounters.
Glace, A. M., & Kaufman, K. L. (2020). Sexual consent attitudes and rape-supportive norms among gender and sexual minority students. *Analyses of Social Issues and Public Policy*, 20(1), 657-675. DOI: 10.1111/asap.12221	Excluded	The study does not investigate the role of nonverbal behaviours.
Graf, A. S., & Johnson, V. (2021). Describing the "gray" area of consent: A comparison of sexual consent understanding across the adult lifespan. *The Journal of Sex Research*, 58(4), 448-461. DOI: 10.1080/00224499.2020.1765953	Excluded	Interpretations of nonverbal behaviours were not analysed.
Gray, J. M. (2015). What constitutes a "reasonable belief" in consent to sex? A thematic analysis. *Journal of Sexual Aggression*, 21(3), 337-353. DOI: 10.1080/13552600.2014.900122	Excluded	Qualitative design used.
Gronert, N. M., & Raclaw, J. (2019). Contesting the terms of consent: how university students (dis) align with institutional policy on sexual consent. *Gender & Language*, 13(3). DOI: 10.1558/genl.3493	Excluded	Qualitative methodology.
Gurnham, D. (2016). Victim-blame as a symptom of rape myth acceptance? Another look at how young people in England understand sexual consent. *Legal Studies*, 36(2), 258-278. DOI: 10.1111/lest.12107	Excluded	The study uses a female only sample.
Hansen, S., O'Byrne, R., & Rapley, M. (2010). Young heterosexual men's use of the miscommunication model in explaining acquaintance rape. *Sexuality Research and Social Policy*, 7(1), 45-49. DOI: 10.1007/s13178-010-0003-4	Excluded	The study uses a qualitative design.
Harris, K. L. (2018). Yes means yes and no means no, but both these mantras need to go: Communication myths in consent education and anti-rape activism. *Journal of Applied Communication Research*, 46(2), 155-178. DOI: 10.1080/00909882.2018.1435900	Excluded	The author presented a critical review of consent research as opposed to an empirical study.

Hayfield, N., & Clarke, V. (2012). "“I'd be just as happy with a cup of tea”: Women's accounts of sex and affection in long-term heterosexual relationships." *In Women's Studies International Forum*, 35(2), 67-74. DOI: 10.1016/j.wsif.2012.01.003	Excluded	The researchers use a female only sample and qualitative design.
Hickman, S. E., & Muehlenhard, C. L. (1999). “By the semi-mystical appearance of a condom”: How young women and men communicate sexual consent in heterosexual situations. *Journal of Sex Research*, 36(3), 258-272. DOI: 10.1080/00224499909551996	**Included**	**Male and female participants, vignette design, specified nonverbal behaviours included within the design and used quantitative methodology.**
Hoxmeier, J. C., O’Connor, J., & McMahon, S. (2019). “She wasn’t resisting”: Students’ barriers to prosocial intervention as bystanders to sexual assault risk situations. *Violence against women*, *25*(4), 485-505. DOI: 10.1177/1077801218790697	Excluded	The study uses a qualitative design and focuses on why participants would not intervene if they observed a sexual assault.
Humphreys, T. (2007). Perceptions of sexual consent: The impact of relationship history and gender. *Journal of Sex Research*, 44(4), 307-315. DOI: 10.1080/00224490701586706	**Included**	**The study included a vignette design, male and female participants, and specific nonverbal behaviours that were measured in relation to perceptions of consent.**
Hust, S. J., Rodgers, K. B., & Bayly, B. (2017). Scripting sexual consent: Internalized traditional sexual scripts and sexual consent expectancies among college students. *Family relations*, 66(1), 197-210. DOI: 10.1111/fare.12230	Excluded	The study did not investigate the role of nonverbal behaviours to form decisions around consent.
Impett, E. A., & Huppin, M. (2005). When does a woman give valid consent to sexual relations?. *Journal of Sex Research*, 42 (3), 273-275.	Excluded	This publication is a book and therefore not suitable for an systematic review.
Jozkowski, K. N. (2013). The influence of consent on college students’ perceptions of the quality of sexual intercourse at last event. *International Journal of Sexual Health*, 25(4), 260-272. DOI: 10.1080/19317611.2013.799626	Excluded	The study’s focus was too broad for the review, as it focused on sexual experience (including reference to nonverbal behaviours), however, this was not suitable for understanding how nonverbal behaviours impact perceptions of consent.
Jozkowski, K. N., Peterson, Z. D., Sanders, S. A., Dennis, B., & Reece, M. (2014). Gender differences in heterosexual college students' conceptualizations and indicators of sexual consent: Implications for contemporary sexual assault prevention education. *The Journal of Sex Research*, 51(8), 904-916. DOI: 10.1080/00224499.2013.792326	**Included**	**The study focused on how consent in communicated, specifically including nonverbal communication. It used quantitative research methods and included men and women participants.**
Jozkowski, K. N., & Ekbia, H. R. (2015). “Campus craft”: A game for sexual assault prevention in universities. *Games for health journal*, 4(2), 95-106. https://doi.org/10.1089/g4h.2014.0056	Excluded	The study did not focus on nonverbal behaviours.

Katz, J., & Tirone, V. (2009). Women's sexual compliance with male dating partners: Associations with investment in ideal womanhood and romantic well-being. *Sex Roles*, 60(5), 347-356. DOI: 10.1007/s11199-008-9566-4	Excluded	Female only sample used.
Katz, J., & Tirone, V. (2010). Going along with it: Sexually coercive partner behavior predicts dating women's compliance with unwanted sex. *Violence against women*, 16(7), 730-742. DOI: 10.1177/1077801210374867	Excluded	The study used a female only sample.
Kennett, D. J., Humphreys, T. P., & Bramley, J. E. (2013). Sexual resourcefulness and gender roles as moderators of relationship satisfaction and consenting to unwanted sex in undergraduate women. *The Canadian Journal of Human Sexuality*, 22(1), 51-61. DOI: 10.3138/cjhs.933	Excluded	Female only sample.
Kilimnik, C. D., & Humphreys, T. P. (2018). Understanding sexual consent and nonconsensual sexual experiences in undergraduate women: The role of identification and rape myth acceptance. *The Canadian Journal of Human Sexuality*, 27(3), 195-206. DOI: 10.3138/cjhs.253-A1	Excluded	The study investigated sexual satisfaction, as opposed to consent behaviours.
King, B. M., Fallon, M. R., Reynolds, E. P., Williamson, K. L., Barber, A., & Giovinazzo, A. R. (2021). College students' perceptions of concurrent/successive nonverbal behaviors as sexual consent. *Journal of interpersonal violence,* 36(23-24), NP13121-NP13135. https://doi.org/10.1177/0886260520905544	**Included**	**The study included male and female participants and measured how nonverbal behaviours impact perceptions of sexual interest and consent. Employed quantitative design.**
Kolod, S. (2018). You say seduction and I say coercion: The gray areas of consent. *Contemporary Psychoanalysis*, 54(4), 651-664. DOI: 10.1080/00107530.2018.1527196	Excluded	This paper discusses literature around consensual behaviours as opposing to presenting an empirical study.
Kowalski, R. M. (1992). Nonverbal behaviors and perceptions of sexual intentions: Effects of sexual connotativeness, verbal response, and rape outcome. *Basic and Applied Social Psychology*, 13(4), 427-445. DOI: 10.1207/s15324834basp1304_4	**Included**	**The study specified which nonverbal behaviours it was measuring/ manipulating, used a mixed gender sample, and quantitative design.**
Landgraf, S., von Treskow, I., & Osterheider, M. (2018). "Sex in a relationship" versus "sex during a one-night stand": The link between mental representations of consensual sexuality, mating strategies, and sexual experience in heterosexual women and men. *Archives of Sexual Behavior*, 47(3), 725-736. DOI: 10.1007/s10508-017-1088-0	Excluded	The authors do not specify which nonverbal behaviours are measured, therefore, not meeting the inclusion criteria.
Lehmiller, J. J. (2019). The importance of studying consent and consent violations in collective sex environments. *Archives of Sexual Behavior*, 48(1), 47-50. DOI: 10.1007/s10508-018-1238-z	Excluded	The author discusses the consent literature and not present an empirical study.

Lim, G. Y., & Roloff, M. E. (1999). Attributing sexual consent. *Journal of Applied Communication Research,* 27(1), 1-23. https://doi.org/10.1080/00909889909365521	Excluded	The nonverbal behaviours included within the study were primarily in relation substance use and how this impact decisions around consent. Excluded on the basis that intoxication is not measured in any of the other studies included.
Lindgren, K. P., Shoda, Y., & George, W. H. (2007). Sexual or friendly? Associations about women, men, and self. *Psychology of Women Quarterly*, *31*(2), 190-201. DOI: 10.1111/j.1471-6402.2007.00352.x	Excluded	The study did not specify which nonverbal behaviours were measured in the methodology or results.
Littleton, H. L., Axsom, D., & Yoder, M. (2006). Priming of consensual and nonconsensual sexual scripts: An experimental test of the role of scripts in rape attributions. *Sex Roles,* 54(7), 557-563. DOI: 10.1007/s11199-006-9017-z	Excluded	Sample consisted of women only.
Lyndon, A. E., White, J. W., & Kadlec, K. M. (2007). Manipulation and force as sexual coercion tactics: Conceptual and empirical differences. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression*, 33(4), 291-303. DOI: 10.1002/ab.20200	Excluded	The study does not examine nonverbal behaviours as a factor in sexual coercion/ negotiation.
Marcus, D. K., & Lehman, S. J. (2002). Are there sex differences in interpersonal perception at zero acquaintance? A social relations analysis. *Journal of Research in Personality*, 36(3), 190-207. DOI: 10.1006/jrpe.2001.2346	Excluded	The study does not look at sexual consent behaviours.
Margolin, L. (1990). Gender and the stolen kiss: The social support of male and female to violate a partner's sexual consent in a noncoercive situation. *Archives of Sexual Behavior*, 19(3), 281-291. DOI: 10.1007/BF01541553	Excluded	This study only investigated one form of nonverbal behaviour (a kiss) and did not link this to decisions around sexual interest/ consent.
Masters, N. T. (2010). 'My strength is not for hurting': Men's anti-rape websites and their construction of masculinity and male sexuality. *Sexualities*, 13(1), 33-46. DOI: 10.1177/1363460709346115	Excluded	Reviews previous literature as opposed to presenting empirical findings.
Mchome, Z., Mshana, G., Aloyce, D., Peter, E., Malibwa, D., Dwarumpudi, A., ... & Stöckl, H. (2020). "Don't you think it is violence forcing me to have sex while not happy?" Women's conceptualization of enjoyable sex and sexual intimate partner violence in Mwanza, Tanzania. *International journal of environmental research and public health*, 17(21), 7937. DOI: 10.3390/ijerph17217937	Excluded	Women only sample.

Monson, C. M., Langhinrichsen-Rohling, J., & Binderup, T. (2000). Does "no" really mean "no" after you say "yes"? Attributions about date and marital rape. *Journal of Interpersonal Violence*, 15(11), 1156-1174. DOI: 10.1177/088626000015011003	Excluded	Nonverbal behaviours not specifically identified in methodology or results section.
Morgan, E., Johnson, I., & Sigler, R. (2006). Gender differences in perceptions for women's participation in unwanted sexual intercourse. *Journal of Criminal Justice*, 34(5), 515-522. DOI: 10.1016/j.jcrimjus.2006.09.006	Excluded	Study did not include measures of nonverbal behaviours.
Morris, S. (2019). Yes, has no meaning if you can't say no: consent and crime in the chemsex context. *Drugs and Alcohol Today,* 19(1), 23-28. DOI: 10.1108/DAT-10-2018-0054	Excluded	Broadly discussed sexual behaviours, however, did not measure behaviours associated with consent.
Mueller, T. M., & Peterson, Z. D. (2012). Affirmative consent and safer, hotter sex: asking for tt: The ethics and erotics of sexual consent, *Journal of Sex Research*, 49(2-3), 303-304. DOI: 10.1080/00224499.2011.607979	Excluded	Review of affirmative literature as opposed to empirical review.
Nason, E. E., Rinehart, J. K., Yeater, E. A., Newlands, R. T., & Crawford, J. N. (2019). Prior sexual relationship, gender and sexual attitudes affect the believability of a hypothetical sexual assault vignette. *Gender Issues*, 36(3), 319-338. DOI: 10.1007/s12147-018-9227-z	Excluded	The authors do not specify how nonverbal behaviour may have impacted decisions made within this study.
Newstrom, N. P., Harris, S. M., & Miner, M. H. (2021). Sexual consent: How relationships, gender, and sexual self-disclosure affect signaling and interpreting cues for sexual consent in a hypothetical heterosexual sexual situation. *Sex Roles*, 84(7), 454-464. DOI: 10.1007/s11199-020-01178-2	**Included**	**Study explored how heterosexual participants interpret and perceive communication cues (including nonverbal, which were specified) around consent. Quantitative design.**
O'Sullivan, L. F., & Allgeier, E. R. (1998). Feigning sexual desire: Consenting to unwanted sexual activity in heterosexual dating relationships. *Journal of Sex Research*, 35(3), 234-243. DOI: 10.1080/00224499809551938	Excluded	Study did not measure specific nonverbal behaviours and how these were incorporated into sexual interactions or perceptions around consent.
Olderbak, S. G., Malter, F., Wolf, P. S. A., Jones, D. N., & Figueredo, A. J. (2017). Predicting romantic interest at zero acquaintance: Evidence of sex differences in trait perception but not in predictors of interest. *European Journal of Personality*, 31(1), 42-62. DOI: 10.1002/per.2087	Excluded	Did not include analysis on nonverbal behaviour.
Ortiz, R. R., & Shafer, A. (2018). Unblurring the lines of sexual consent with a college student-driven sexual consent education campaign. *Journal of American college health*, 66(6), 450-456. DOI: 10.1080/07448481.2018.1431902	Excluded	Focuses on consent education and does not measure the role of nonverbal behaviours in perceptions around consent.

Osman, S. L. (2003). Predicting men's rape perceptions based on the belief that "no" really means "yes". Journal of Applied Social Psychology, 33(4), 683-692. DOI: 10.1111/j.1559-1816.2003.tb01919.x	Excluded	Nonverbal behaviours included within the vignette design were not specified within the methodology or results section.
Peterson, Z. D., & Muehlenhard, C. L. (2004). Was it rape? The function of women's rape myth acceptance and definitions of sex in labeling their own experiences. *Sex Roles*, 51(3), 129-144. DOI: 10.1023/B:SERS.0000037758.95376.00	Excluded	Does not measure nonverbal behaviours.
Peterson, Z. D., & Muehlenhard, C. L. (2007). Conceptualizing the "wantedness" of women's consensual and nonconsensual sexual experiences: Implications for how women label their experiences with rape. *Journal of sex research*, 44(1), 72-88. DOI: 10.1080/00224490709336794	Excluded	Female participants only.
Piemonte, J. L., Gusakova, S., Nichols, M., & Conley, T. D. (2020). Is consent sexy? Comparing evaluations of written erotica based on verbal sexual consent. *Psychology & Sexuality*, 11(4), 270-292. DOI: 10.1080/19419899.2020.1769161	Excluded	Although nonverbal consent was measured, the specific nonverbal behaviours included within the design were not specified.
Porges, S. W., & Peper, E. (2015). When not saying no does not mean yes: Psychophysiological factors involved in date rape. *Biofeedback*, 43(1), 45-48. DOI: 10.5298/1081-5937-43.1.01	Excluded	Perceptions about consensual behaviour measured, but specific nonverbal behaviours were not included within the write-up.
Regan, P. C. (1997). The impact of male sexual request style on perceptions of sexual interactions: The mediational role of beliefs about female sexual desire. *Basic and Applied Social Psychology*, 19(4), 519-532.	Excluded	Nonverbal behaviours measured in relation to sexual style, as opposed to perceptions of consent or sexual interest.
Rerick, P. O., Livingston, T. N., & Davis, D. (2020). Does the horny man think women want him too? Effects of male sexual arousal on perceptions of female sexual willingness. *The Journal of social psychology,* 160(4), 520-533. DOI: 10.1080/00224545.2019.1692330	**Included**	**The study examines interpretations of nonverbal communication in sexual encounters, uses quantitative methods, vignette design, and mixed gender participants.**
Satinsky, S., & Jozkowski, K. N. (2015). Female sexual subjectivity and verbal consent to receiving oral sex. *Journal of sex & marital therapy*, 41(4), 413-426. DOI: 10.1080/0092623X.2014.918065	Excluded	This study did not specifically measure nonverbal behaviours and instead focused on verbal communication.
Sizemore, K. M., & Olmstead, S. B. (2017). Willingness to engage in consensual nonmonogamy among emerging adults: A structural equation analysis of sexual identity, casual sex attitudes, and gender. *The Journal of Sex Research*, 54(9), 1106-1117. DOI: 10.1080/00224499.2016.1243200	Excluded	Researchers did not measure nonverbal behaviours during sexual interactions.
Shafer, A., Ortiz, R. R., Thompson, B., & Huemmer, J. (2018). The role of hypermasculinity, token resistance, rape myth, and assertive sexual consent communication among college men. *Journal of Adolescent Health*, 62(3), S44-S50. DOI: 10.1016/j.jadohealth.2017.10.015	**Included**	**The study used an quantitative design, adult male sample, and measured how specific nonverbal behaviours impact perceptions around consent.**
Sprecher, S., Hatfield, E., Cortese, A., Potapova, E., & Levitskaya, A. (1994). Token resistance to sexual intercourse and consent to unwanted sexual intercourse: College students' dating	Excluded	This study did not measure include nonverbal behaviours.

experiences in three countries. *Journal of Sex Research*, 31(2), 125-132. DOI: 10.1080/00224499409551739		
Terán, L., & Dajches, L. (2020). The pornography "how-to" script: The moderating role of consent attitudes on pornography consumption and sexual refusal assertiveness. *Sexuality & Culture*, 24(6), 2098-2112. DOI: 10.1007/s12119-020-09739-z	Excluded	The study focuses specifically on pornography use as opposed to perceptions around consent.
Uhl, C. A., Rhyner, K. J., Terrance, C. A., & Lugo, N. R. (2018). An examination of nonconsensual pornography websites. *Feminism & Psychology,* 28(1), 50-68. DOI: 10.1177/0959353517720225	Excluded	Study does not include anaylsis on nonverbal behaviours.
Walker, S. J. (1997). When "no" becomes "yes": Why girls and women consent to unwanted sex. *Applied and Preventive Psychology,* 6(3), 157-166. DOI: 10.1016/S0962-1849(97)80003-0	Excluded	Qualitative design and includes accounts from participants under 18 years old.
Whissell, C. (1998). Linguistic, emotional and content analyses of sexually explicit scenes in popular fiction. *The Canadian Journal of Human Sexuality*, 7(2), 147.	Excluded	The study is board around sexual behaviour and does not measure nonverbal behaviours related to sexual interest or consent.
Whitley Jr, B. E. (1998). False consensus on sexual behavior among college women: Comparison of four theoretical explanations. *Journal of Sex Research*, 35(2), 206-214. DOI: 10.1080/00224499809551934	Excluded	Female only sample.
Willan, V. J., & Pollard, P. (2003). Likelihood of acquaintance rape as a function of males' sexual expectations, disappointment, and adherence to rape-conducive attitudes. *Journal of Social and Personal Relationships, 20(5),* 637-661. DOI: 10.1177/02654075030205004	**Included**	**The authors specifically name the nonverbal behaviours measured in the design, use quantitative research methods, and use adult-only mixed gender sample.**
Willis, M., & Jozkowski, K. N. (2018). Barriers to the success of affirmative consent initiatives: An application of the social ecological model. *American Journal of Sexuality Education*, 13(3), 324-336. DOI: 10.1080/15546128.2018.1443300	Excluded	Review of affirmative consent, including role of nonverbal behaviour. However, does not present empirical findings.
Willis, M., Fu, T. C., Jozkowski, K. N., Dodge, B., & Herbenick, D. (2022). Associations between sexual precedent and sexual compliance: An event-level examination. *Journal of American college health*, 70(1), 107-113. DOI: 10.1080/07448481.2020.1726928	Excluded	This study focuses on sexual compliance and does not discuss the role of nonverbal behaviour.
Wilson, B. A., Holm, J. E., Bishop, K. L., & Borowiak, D. M. (2002). Predicting responses to sexually aggressive stories: The role of consent, interest in sexual aggression, and overall sexual interest. *Journal of sex research*, 39(4), 275-283. DOI: 10.1080/00224490209552151	Excluded	The study did not specifically measure the role of nonverbal behaviours in interpreting or perceiving consent.
Winslett, A. H., & Gross, A. M. (2008). Sexual boundaries: An examination of the importance of talking before touching. *Violence Against Women*, 14(5), 542-562. DOI: 10.1177/1077801208315527	Excluded	Nonverbal behaviours not specified included within the study's methodology or results.
Yeagley, E., Morling, B., & Nelson, M. (2007). Nonverbal zero-acquaintance accuracy of self-esteem, social dominance orientation, and satisfaction with life. *Journal of Research in Personality*, 41(5), 1099-1106. DOI: 10.1016/j.jrp.2006.12.002	Excluded	The authors do not focus on sexual consent behaviours or literature.

Yount, K. M., Minh, T. H., Trang, Q. T., Cheong, Y. F., Bergenfeld, I., & Sales, J. M. (2020). Preventing sexual violence in college men: a randomized-controlled trial of GlobalConsent. *BMC public health*, 20(1), 1-19. DOI: 10.1186/s12889-020-09454-2	Excluded	Research focusing on development of sexual violence prevention tool, as opposed to considering the role of nonverbal behaviours in interpreting consent.

Appendix D - Quality Assessment

Quality Assessment Tool for Quantitative Studies (adapted) by Effective Public Health Practice Project [EPHPP], (1998).

Quality of Assessment Section	Scoring of Subsection	Overall rating of Quality in Section
A. Selection Bias (Sample); 1. Are the Individuals selected to participate in the study likely to be representative of the target population? 2. What percentage of selected individuals agreed to participate?	Q1. 1. Very Likely 2. Somewhat Likely 3. Not likely 4. Cant tell Q2. 1. 80-100% 2. 60-79% 3. Less than 60% agreement 4. Not Applicable 5. Cant tell	*(Scoring; strong [1] / Moderate [2] / Weak [3])* *Or* *N/A*
B. Study Design; 1. Indicate the study design	Q1. 1. Randomised control trial 2. Controlled clinical trial 3. Cohort analytic trail (pre + post) 4. Case-control	*(Scoring; strong [1] / Moderate [2] / Weak [3])* *Or*

	5. Cohort (one group pre & post) 6. Interrupted time series 7. Other 8. Can't tell	*N/A*
2. Was the study described as randomised? If NO go to component C. 3. If YES, was the method of randomisation described? 4. If YES, was the method appropriate?	Q2. 1. Yes 2. No Q3. 1. Yes 2. No Q4. 1. Yes 2. No	
C. Confounders; 1. Where there important differences between groups prior to the	Q1. 1. Yes 2. No 3. Can't Tell Q2. 1. Race	*(Scoring; strong [1] / Moderate [2] / Weak [3])* *<u>Or</u>* *N/A*

intervention? 2. The following are examples of confounders: 3. If YES, indicated the percentage of the relevant confounders that were controlled (either design or analysis)	2. Sex 3. Marital Statas/family 4. Age 5. SES 6. Education 7. Health Status 8. Pre-intervention score on outcome measure Q3. 1. 80-100% (Most) 2. 6-79% (some) 3. Less than 60% (few or none) 4. Can't tell	
D. Blinding; 1. Were the outcome assessors aware of the intervention or	Q1. 1. Yes 2. No 3. Can't tell Q2. 1. Yes	*(Scoring; strong [1] / Moderate [2] / Weak [3])* <u>*Or*</u> *N/A*

exposure status of participant? 2. Were the study participant aware of the research question?	2. No 3. Can't tell	
E. Data Collection Methods 1. were data collection tools found to be valid? 2. Were data collection tools found to be reliable?	Q1. 1. Yes 2. No 3. Can't tell Q2. 1. Yes 2. No 3. Can't tell	*(Scoring; strong [1] / Moderate [2] / Weak [3])* *<u>Or</u>* *N/A*
F. Withdrawals and Drop-Outs 1. Were withdrawals and drop outs reported in terms of numbers and/or reasons per group? 2. Indicated the percentage of	Q1. 1. Yes 2. No 3. Can't tell 4. NA Q2. 1. 80-100% 2. 60-79% 3. Less that 60% 4. Can't tell 5. NA	*(Scoring; strong [1] / Moderate [2] / Weak [3])* *<u>Or</u>* *N/A*

participants completing the study		
G. Intervention Intergrity 1. What percentage of the participants received that allocated intervention or exposure of interest? 2. What was the consistency of the intervention measures? 3. Is it likely that subjects received an unintended intervention that may influence results?	Q1. 1. 80-100% 2. 60-79% 3. Less that 60% 4. Can't tell Q2. 1. Yes 2. No 3. Can't tell Q3. 1. Yes 2. No 3. Can't tell	*(Scoring; strong [1] / Moderate [2] / Weak [3])* *<u>Or</u>* *N/A*
H. Analysis 1. Indicate the unit of allocation	Q1. 1. Community 2. Organisation/ Institution 3. Practice / Office 4. Individual	*(Scoring; strong [1] / Moderate [2] / Weak [3])* *<u>Or</u>*

2. Indicate the unit of analysis	Q2. 1. Community 2. Organisation/ Institution 3. Practice / Office 4. Individual	*N/A*
3. Are the statistical methods appropriate for the study design?	Q3. 1. Yes 2. No 3. Can't tell	
4. Is the analysis performed by intervention allocation status rather than the actual intervention received?	Q4. 1. Yes 2. No 3. Can't tell	

Global Rating for this Paper;

1. Strong (NO Weak ratings)
2. Moderate (ONE Weak rating)
3. Weak (TWO or more weak ratings)

Appendix E - Quality Assessment of Publications meeting Inclusion Criteria

Article Reference	Quality Rating	Included/ Excluded
Abbey, A. (1987). Misperceptions of friendly behavior as sexual interest: A survey of naturally occurring incidents. *Psychology of Women Quarterly*, *11*(2), 173-194	Not included	Excluded; Did not specify what behaviours were being measured in relation to friendliness.
Beres, M. A. (2007). Sexual consent to heterosexual casual sex among young adults living in jasper (alberta). *Dissertation Abstracts International Section A: Humanities and Social Sciences, 68*(1-A), 351.	MODERATE	Excluded; Qualitative methodology only
Beres, M. A. (2014a). Rethinking the concept of	MODERATE	Excluded; Qualitative methodology

consent for anti-sexual violence activism and education.*Feminism & Psychology, 24*(3), 373-389		
Harris, L. R., & Weiss, D. J. (1995). Judgments of consent in simulated rape cases. Journal of Social Behavior & Personality, 10(1), 79-90.	Moderate	Excluded;
Hermann, C., Liang, C. T. H., & DeSipio, B. E. (2017). Exploring sexual consent and hostile masculine norms using the theory of planned behavior. Psychology of Men & Masculinity,	Strong	Included
Hickman, S. E., & Muehlenhard, C. L. (1999). "By the semi-mystical appearance of a condom": How young women and men communicate sexual consent in	Strong	Excluded;

heterosexual situations. Journal of Sex Research, 36(3), 258-272.		
Humphreys, T. (2007). Perceptions of sexual consent: The impact of relationship history and gender.Journal of Sex Research, 44(4), 307-315.	Moderate	Included
Humphreys, T. P., & Brousseau, M. M. (2010). The sexual consent scale-revised: Development, reliability, and preliminary validity. Journal of Sex Research, 47(5), 420-428.	MODERATE	Evaluative study on the psychometric measure; Consent-Scale Revised. Did not focus on population results in regards to attitudes.
Jozkowski, K. N., & Peterson, Z. D. (2013a). College students and sexual consent: Unique insights.Journal of Sex Research, 50(6), 517-523.	STRONG	Asked participants to incude narrative responses to a list of statements. No use of vignettes
Kahan, D. M. (2010). Culture, cognition, and consent: Who perceives what, and why, in acquaintance-rape cases.	Strong	Excluded;

University of Pennsylvania Law Review, 158(3), 729-813.		
Kelly, A. J., Dubbs, S. L., & Barlow, F. K. (2015). Social dominance orientation predicts heterosexual men's adverse reactions to romantic rejection. Archives of Sexual Behavior, 44(4), 903-919. 10.1007/s10508-014-0348-5	STRONG	Not focusing on issues of consent but more how males respond to rejection. No use of vignettes or scenarios.
Lim, G. Y., & Roloff, M. E. (1999). Attributing sexual consent. Journal of Applied Communication Research, 27(1), 1-23.	Moderate	Excluded;
Moor, A. (2010). She dresses to attract, he perceives seduction: A gender gap in attribution of intent to women's revealing style of dress and its relation to blaming the victims of sexual violence. Journal of International Women's Studies, 11(4), 115-127.	Moderate	Focused on the female's perspective as to why she engaged in unwanted sexual intercourse and asked the male representatives to imagine why this may have been. Not how participants obtain consent.

Morgan, E., Johnson, I., & Sigler, R. (2006). Gender differences in perceptions for women's participation in unwanted sexual intercourse. Journal of Criminal Justice, 34(5), 515-522.	Moderate	Israli sample. Shown a picture of a female dressed in revealing clothing – results from males showed they believed she was dressing in a revealing and seductive way in order to tempt males.
O'Byrne, R., Rapley, M., & Hansen, S. (2006). 'You couldn't say "no", could you?': Young men's understandings of sexual refusal. Feminism & Psychology, 16(2), 133-154.	Moderate	Used focus group design.
Shafer, A., Ortiz, R. R., Thompson, B., & Huemmer, J. (2018). The role of hypermasculinity, token resistance, rape myth, and assertive sexual consent communication among college men. Journal of Adolescent Health, 62(3), S50.	Strong	Included
SEMONSKY, M. R., & ROSENFELD, L. B. (1994).	Weak	Excluded;

Perceptions of sexual violations - denying a kiss, stealing a kiss. Sex Roles, 30(7-8), 503-520.		
Sullivan, J. P., & Mosher, D. L. (1990). Acceptance of guided imagery of marital rape as a function of macho personality. Violence and Victims, 5(4), 275-286	Moderate	Excluded;
Willan, V. J., & Pollard, P. (2003). Likelihood of acquaintance rape as a function of males' sexual expectations, disappointment, and adherence to rape-conducive attitudes. Journal of Social and Personal Relationships, 20(5), 637-661.	Moderate	iuncluded

Appendix F - Data Extraction Form

Title;	
Author(s);	
Year;	
Geographical Location;	
Aim(s) of study;	

Population

- Gender of sample;

- Age range of sample;

- Ethniciy of sample;

- Sample size;

    - Male:

    - Female:

Intervention

- What was measured (e.g attitudes / experience re consent?)

- What methodology was used?

- Were examples of data collection methods provided in write up (vignettes, wording of questions establishing first and/or third person perspective?)

Comparator

- How did assessor measure issues around consent?

- What were the results for the male sample population?

- Did these differ (significantly or non-significantly) to female results? How so?

Outcome

- What statistical analysis was used?

- Were issues surrounding consent appropriately measured?

- Were there significant findings in relation to the male sample? What were these?

Limitations of Study

Conclusion

Additional Comments

Appendix G - Information Sheet

(Start of Survey)

The Study – this study will be focusing on the development of relationships. You will be asked to take part in an online survey which will last approximately 10 minutes.

- Within this you will firstly be asked some questions about yourself, such as your age, ethnicity, employment/ study status and sexuality. You will also be asked to numerically rate your sexual experience using a 1-7 scale. None of this information will make you indentifiable in any way.
- You will then be asked to complete a short questionnaire which asks about your views on masculinity and dating.

- Following this you will be shown a short text (vignette) and then video clip of an interaction between a male and female, where you will then be asked some questions about this interaction from your own perspective.

Confidentiality: all your data will remain completely confidential. This will be achieved by providing you with your own unique code which you will be asked to make a note of. If at any point you wish to withdraw after completing the survey you will be asked to quote your code so that your data can be located and deleted. If you quit the survey mid-way through completion, none of your data will be included in the final analysis and you will not need to make contact to withdraw. Further information about withdrawing will be provided at the end of the survey.

Raffle: there is an opportunity to enter a prize draw to win a £100 Amazon give voucher. If you wish to enter this, you will be asked to provide your email address at the end of the survey. This is completely optional and you do not have to enter the draw to take part. However, if you do then your email address will be asked for. This will be the only identifable information we will store and it will be used solely for the raffle purpose. Participants who do not complete the survey will not be able to enter their e-mail address in order to enter the raffle.

Withdrawal: you are able to withdraw from taking part in this research at any point. You can do this by not proceeding any further, not completing the survey or contacting the researcher or research supervisor following completion of the survey asking for your results to not be included in the final project. You can do this by contacting Lucy Whaley at LHW770@student.bham.ac.uk or the research supervisor, Dr Heather Flowe at H.Flowe@bham.ac.uk and quoting your unique code which will be provided at the end of the

survey. Withdrawal will also impact entry into the raffle prize. Participants who withdraw their results after completing the survey will have their e-mail address removed from the raffle prize draw in order to completely remove all of their data as requested.

Inclusion Criteria: this study is recruiting males only participants over the age of 18 to take part.

Consent: If you are 18 or over and happy to take part, please proceed.

Appendix H- Information Sheet

(Completion of survey)

Thank you for taking part in this study!

The study: at the start of the survey you were informed that this study is focusing on relationship development. However, the true aim of this research is to analyse the impact of non-verbal behaviours during dating scenarios, and whether these influence decisions people make regarding further sexual activity. There is no right or wrong answer, the aim of this study

was to gain a greater understanding into perceptions males make based on non-verbal communication, and whether this is consciously considered when decision making.

This information was not provided at the start of the study as it would have made you aware of the non-verbal behaviours and undermined the validity of this study. If you wish to withdraw your data based on this new information then this can be carried out by email myself or the lead supervisor, quoting your unique code. You will receive an acknowledgment and confirmation that your data has been removed from the research project. The deadline for having data **withdrawn is 28th Febuary 2021.** After this date, unfortunately no data will be able to be removed as data collection will be complete and it will be undergoing interpretation.

Contact email addresses for withdrawing data; LHW770@student.bham.ac.uk

h.flowe@bham.ac.uk

Raffle: if you wish to enter a prize draw and be in with a chance of winning £100 Amazon gift voucher, please follow the link and enter your email address. This will be used to contact you if you are the winner of the prize. The raffle will occur in May 2021. If you chose to withdraw your results from the study, prior to 28th February 2021, then you will also be removed from the raffle prize as all data belonging to you, including your email address, will be deleted from the research files.

Thank you again for taking part in this study!

Appendix I - Demographic Questions

The participants will be asked to enter demographic information about themselves.

Age:

What is your age?

- 18-24 years old
- 25-34 years old

- 35-44 years old
- 45-54 years old
- 55+

(Most commonly used age categories in National Statistic literature and NHS data collection)

Ethnicity:

What is your ethnic group?

Choose one option that best describes your ethnic group or background

White

1. English / Welsh / Scottish / Northern Irish / British 2. Irish

3. Gypsy or Irish Traveller

4. Any other White background, *please describe*

Mixed / Multiple ethnic groups

5. White and Black Caribbean

6. White and Black African

7. White and Asian

8. Any other Mixed / Multiple ethnic background, *please describe*

Asian / Asian British

9. Indian

10. Pakistani

11. Bangladeshi

12. Chinese

13. Any other Asian background, *please describe*

Black / African / Caribbean / Black British

14. African

15. Caribbean

16. Any other Black / African / Caribbean background, *please describe*

Other ethnic group

17. Arab

18. Any other ethnic group, *please describe*

***(Reference** – May 2015. Government Statistic Service. Harmonised concepts and questions for social data sources: primary principles)*

Employment Status

Please select your current employment status?

- In full-time education
- In part-time education
- Employed (full or part time)
- Not in employment
- Retired

Sexuality

How would you describe your sexual orientation?

- Heterosexual or straight

- Homosexual or gay
- Bisexual
- Other sexual orientation not listed
- Unsure
- Would rather not say

*(**Reference** – October 2017; Sexual Orientation Monitoring: Full Specification. NHS England)*

Sexual experience

Using the 1-7 Likert Scale, how would you rate your sexual experience? (1 being completely inexperienced – 7 being extremely experienced).

Please select your response.

1 2 3 4 5 6 7

Appendix J - Conformity to Masculine Norms Inventory – 46 Questionnaire (CMNI-46)

The following pages contain a series of statements about how men might think, feel or behave.

The statements are designed to measure attitudes, beliefs, and behaviours associated with both traditional and non-traditional masculine gender roles.

Thinking about **your own actions, feelings and beliefs**, please indicate how much you personally agree or disagree with each statement by circling SD for "Strongly Disagree", D for "Disagree", A for "Agree," or SA for "Strongly agree" to the left of the statement. There are no right or wrong responses to the statements. You should give the responses that most accurately describe your personal actions, feelings and beliefs. It is best if you respond with your first impression when answering.

[Response scale: Strongly Disagree – Disagree – Agree – Strongly Agree]

1 In general, I will do anything to win

2 If I could, I would frequently change sexual partners

3 I hate asking for help

4 I believe that violence is never justified

5 Being thought of as gay is not a bad thing

6 In general, I do not like risky situations

7 Winning is not my first priority

8 I enjoy taking risks

9 I am disgusted by any kind of violence

10 I ask for help when I need it

11 My work is the most important part of my life

12 I would only have sex if I was in a committed relationship

13 I bring up my feelings when talking to others

14 I would be furious if someone thought I was gay

15 I don't mind losing

16 I take risks

17 It would not bother me at all if someone thought I was gay

18 I never share my feelings

19 Sometimes violent action is necessary

20 In general, I control the women in my life

21 I would feel good if I had many sexual partners

22 It is important for me to win

23 I don't like giving all my attention to work

24 It would be awful if people thought I was gay

25 I like to talk about my feelings

26 I never ask for help

27 More often than not, losing does not bother me

28 I frequently put myself in risky situations

29 Women should be subservient to men

30 I am willing to get into a physical fight if necessary

31 I feel good when work is my first priority

32 I tend to keep my feelings to myself

33 Winning is not important to me

34 Violence is almost never justified

35 I am happiest when I'm risking danger

36 It would be enjoyable to date more than one person at a time 37 I would feel uncomfortable if someone thought I was gay

38 I am not ashamed to ask for help

39 Work comes first

40 I tend to share my feelings

41 No matter what the situation I would never act violently 42 Things tend to be better when men are in charge

43 It bothers me when I have to ask for help

44 I love it when men are in charge of women

45 I hate it when people ask me to talk about my feelings 46 I try to avoid being perceived as gay

Appendix - K
Diehl et al. (2012) Short-Term Mating Orientation (STMO) Questions

Participants were asked to rate their agreement with these statements using a 1-7 Likert scale; 1 (strongly disagree) – 7 (strongly agree)

1. Sex without love is OK.

2. I can easily imagine myself being comfortable and enjoying 'casual sex' with different partners.

3. I could easily imagine myself enjoying one night of sex with someone I would never see again.

4. I could enjoy sex with someone I find highly desirable even if that person does not have long-term potential.

Appendix L - Vignette

1.1. Kowalski (1992)'s original Vignette;

"John and Mary were both students at a University. Although they had seen each other around campus, they became acquainted when they enrolled in the same class. Because they sat next to each other in class, they talk on occasions and borrowed notes from one another when they had to miss a class. Halfway through the semester, John asked Mary out for the following Friday night. After he picked her up, he suggested that they have dinner and then go to see a film she had been wanting to see for a long time. Over dinner they discussed their classes and the friends they had in common. They continued this conversation whilst they were waiting in line for the film. John paid for the tickets and they went inside. Following the film, John and Mary were walking to the car trying to decide on something else to do. Mary suggested that she had just bought a new music device and they could go to her apartment and listen to music. Upon arriving at the apartment, Mary turned on the speaker and they sat on the sofa listening to music and talking".

1.2. Updated Vignette (changes have been highlighted);

"John and Mary were both students at a University. Although they had seen each other around campus, they became acquainted when they enrolled in the same class. Because they sat next to each other in class, they talk on occasions and borrowed notes from one another when they had to miss a class. Halfway through the semester, John asked Mary out for the following Friday night. After he picked her up, he suggested that they have dinner and then go to see a **film** she had been wanting to see. Over dinner they discussed their classes and the friends they had in common. They continued this conversation whilst they were **waiting for the film tickets.** John paid for the tickets and they went inside. Following the film, John and Mary were walking to the car trying to decide on something else to do. Mary suggested

that she had just bought a **new wireless speaker** and they could go to her apartment and listen to music. Upon arriving at the apartment, Mary turned **on the speaker** and they sat on the sofa listening to music and talking".

Appendix M - Video Clip Script

(*A natural, somewhat flirtatious conversation with very neutral content so that the dialogue does not skew the results or take away from the non-verbal behaviours. The scene will be the couple sitting on the sofa having this conversation; there will be no alcohol in sight or suggestion that they have been drinking. A portable speaker will be on the table playing low level, barely audible music. The couple will be sitting comfortably next to one another in a familiar fashion, with a close enough rage for the non-verbal behaviours to look natural when carried out).*

Mary: So, what about this song? It's one of my absolute faves by them.

John: yeah, I really like this one too but White Shores?!!

Mary: hmmm yeah, good. But I definitely prefer this one. This is the one I'm looking forward to hearing live.

John: yeah to be fair it this is gonna be a good one live. I can't believe you are seeing them next week. Whats the venue again?

Mary: I know I am beyond excited. Erm, it's at The Arena. How ideal, so easy to get too.

John: ahh I'm so jealous. I wanted to see them but the tickets are all sold out, aren't they?

Mary: yep. Sorryyy. I'll send you videos if you're lucky…

John: laugh... rub it in why don't you.

Mary: are you sure there are no tickets left?

John: yeah me and my mates have all looked and the only ones left are super expensive and don't get me wrong, Artic Nights are awesome but so is eating.

Mary: You make a good point!

*** INSERT NVB***

John: remind me of who you are going with again?

Mary: just a few friends, none from the course. Actually, do you know Kate? She works in the pub at the end of the road.

John: ohhhh yeah, I know Kate, I didn't know she was into them!

Mary: yeah Kate's my music guru. She is an expert with up and coming artists. She keeps me pretty trendy.

John: Kate the music guru eh. I reckon I could give her a run for her money.

Ok, so what about Fire Catchers? They are playing around here soon too apparently.

Mary: are they?! I've only heard a few of their songs mind you.

John: oh, so it looks like someone's music guru is letting them down!

Mary: now now. Don't start on my guru, I *have* heard them, just not as in to them as you by the sounds of it.

John: the competition with Kate is on.

Mary: so, are you going to see them then?

John: yeah probably. If I can get tickets. They're not out yet, think they go on sale next week. So, would what do you think of the songs you've heard by them then?

Mary: pretty good. Give me some recommendations and I'll have a listen.

John: alright, well I think it is my turn to take over with the music for a bit and you can see what you think.

Mary: oh, will you now.

*** INSERT NVB***

We'll see about that.

END

Appendix N – Preliminary Results

The first set of analyses examine the relationship between the demographic variables and the dependent variables. Table 4 provides information about the demographic characteristics of the sample. As can be seen, the majority of the sample was between the ages of 25 and 44 years of age inclusive, White or Caucasian ethnicity, identified as heterosexual, and reported that they were in employment.

Table 4

Descriptive statistics of the sample demographics

Demographic	Frequency (n)	Percentage
Age		
18-24	74	8.3
25-34	272	30.6%
35-44	270	30.4%
45-54	138	15.5%
55+	134	15.1%
Ethnicity		
White or Caucasian	602	67.8%
Black or African American	113	12.7%
Asian or South Asian	16	1.8%

Hispanic or Latino	68	7.7%
Asian or Asian American	72	8.1%
American Indian or Alaska Native	4	0.5%
Native Hawaiian or other Pacific Islander	2	0.2%
Another Race	8	0.9%
Would rather not say	3	0.3%
Sexual Oritentation		
Heterosexual or Straight	809	91%
Bisexual	32	3.6%
Other sexual orientation not listed	7	0.8%
Unsure	4	0.5%
Would rather not say	4	0.5%
Employment Status		
In full time education	65	7.3%
In part time education	18	2%
Employed (full or part time)	648	73%
Not in employment or education	97	10.0%
Retired	52	5.9%
Would rather not say	8	0.9%

Table 4 illustrates the different sample sizes for age. Therefore, a Levene's test of homogeneity was completed to assess the variance of the CMNI-46 scores in each age

category. The results showed there was unequal group variance across age groups and CMNI-46 scores **F**(4, 883) = 2.850, p = .023. Therefore, a one-way ANOVA including the Welch statistic was completed due to the assumption of homogeneity being violated. This showed that the mean CMNI-46 scores differed significantly across age categories F_{Welch} (4, 319.78) = 3.171, p = 0.14. Games-Howell post hoc testing indicated that the 35-54 age group provided significantly higher CMNI-46 scores compared to the 55+ age group (see Table 5), (p < .007).

Table 5

Age and CMNI-46 scores

Age	Means	Standard Deviations
18-24	63.648	19.417
25-34	64.290	19.883
35-44	62.763	22.832
45-54	61.101	17.477
55+	58.149	15.793
Total	62.350	19.968

Similarly, the relationship between ethnicity and CMNI-46 scores was examined to assess whether there were any significant differences in participants ethnicity and conformity to masculine norms. A Levene's test of homogeneity showed that the assumption of was not met, **F**(8, 879) = 1.411, p = .014. A one-way ANOVA (see Table 6) using the Welch test showed that there were not any significant differences between participants ethnicity and CMNI-46 scores F_{Welch}(8, 13.180) = 1.262, p = .340. Though, it must be noted that there were significant differences in sample sizes regarding ethnicity, with White-Causation men

forming the largest proportion of participants (see Table 4 for participant demographic information).

Table 6

Ethnicity and CMNI-46 scores

Ethnicity	Mean	Standard Deviation
White or Caucasian	60.858	18.973
Black or African American	67.026	23.280
South Asian	71.125	26.785
Hispanic or Latino	64.544	16.700
Asian or Asian American	63.000	23.656
American Indian or Alaska Native	62.500	10.723
Native Hawaiian or other Pacific Islander	61.000	9.899
Another race	59.750	13.285
Would rather not say	69.000	8.00

Ethnicity and sexual intent scores were analysed to investigate whether there were any differences between the intent scores of different ethnicities. A Levene's test showed the variances of intent scores across ethnicities were equal, $\mathbf{F}(8, 879) = 1.838$, $p = .067$. A one-way ANOVA (Table 7) indicated that there were not any significant differences between ethnicity and intent scores, $\mathbf{F}(8, 879) = 1.258$, $p = .268$.

Table 7

Ethnicity and sexual intent scores

Ethnicity	Mean	Standard Deviation
White or Caucasian	2.92	1.042

Black or African American	3.30	1.248
South Asian	3.13	1.360
Hispanic or Latino	3.06	1.157
Asian or Asian American	3.19	1.109
American Indian or Alaska Native	3.25	1.258
Native Hawaiian or other Pacific Islander	3.00	1.414
Another race	3.00	1.069
Would rather not say	3.33	.577

The relationship between age and sexual experience was also assessed. The Levene's test indicated that there was unequal variances between age and sexual experience ratings (**F**(4, 883), 3.043, p = 0.17). Therefore, a one-way ANOVA including a Welch test was completed. This showed that there were statistically significant differences between age and sexual experience ratings, $F_{Welch}(4, 310.766) = 10.405$, p = <.001. To investigate further, post hoc test Games-Howell found that participants in the 18-24 age group rated their sexual experience as significantly different to all other age groups (see Table 8). Furthermore, participants in the 55+ age group rated their sexual experience to be significantly higher (M= 5.56, SD= 1.248) than participants in the 25-34 age group (M= 5.05, SD= 1.6020, p = .009. However, it is noted that the 55+ age group (n= 134) was substantially smaller than the 25-34 age group (n= 272).

Table 8

Games-Howell test of age and sexual experience

		95% Confidence Interval	
Age	**Sig.**	**Lower Bound**	**Upper Bound**

18-24 years old	25-34	.003	-1.47	-.22
	35-44	<.001	-1.76	-.53
	45-54	<.001	-1.93	-.69
	55+	<.001	-1.97	1.47
25-34 years old	18-25	.003	.22	.06
	35-44	.161	-.66	.01
	45-54	.055	-.85	-.08
	55+	.009	-.88	1.76
35-44 years old	18-24	<.001	.53	.66
	25-34	.161	-.06	.29
	45-54	.920	-.54	.20
	55+	.673	-.57	1.93
45-54 years old	18-24	<.001	.61	.85
	25-34	.055	-.01	.54
	35-44	.920	-.29	.39
	55+	.996	-.51	1.97
55+ years old	18-24	<.001	.69	.88
	25-34	.009	.08	.57
	35-44	.673	-.20	.51
	45-54	.996	-.39	

Finally, the relationship between ethnicity and sexual experience was also examined using a one-way ANOVA with ethnicity as the independent variable, and sexual experience as the dependent variable. The Levene's test of homogeneity showed that the variance between

sexual experience and ethnicity was equal. Next, a one-way ANOVA (see Table 9) was carried out and this indicated that there were statistical differences between participants' ratings of sexual experience and ethnicity, **F**(8, 879) = 2.138, p = .030. Bonferroni post hoc tests revealed that Black / African American participants (M= 5.55, SD= 1.547) rated their sexual experience to significantly higher than Asian/ Asian American men (M= 4.67, SD= 1.583), p = .005. However, the sample sizes between these groups was unequal, with there being more Black / African American men (n= 113) compared with Asian / Asian American (n= 72) within this study.

Table 9

Ethnicity and sexual experience ratings

Ethnicity	**Mean**	**Standard Deviation**
White or Caucasian	5.21	1.525
Black or African American	5.55	1.547
South Asian	5.25	1.238
Hispanic or Latino	5.43	1.577
Asian or Asian American	4.67	1.583
American Indian or Alaska Native	5.50	1.291
Native Hawaiian or other Pacific Islander	6.00	.000
Another race	5.63	1.408
Would rather not say	5.00	1.000

Employment status was analysed in comparison to conformity to masculine norms using a one-way ANOVA (see Table 10). The assumption of homogeneity was met (**F**(5, 882)

= 1.367, p = .234). The one-way ANOVA showed that there were not any significant differences between employment status and CMNI-46 scores, **F**(5, 882) = 1.557, p = .170.

Table 10

Employment status and CMNI-46 scores

Employment Status	Mean	Standard Deviation
Full-time Education	64.076	17.311
Part-time Education	56.611	21.793
Employed	62.524	20.057
Not in Employment or Education	64.484	23.189
Retired	56.538	14.096
Would rather not say	59.000	13.638

Likewise, employment status and sexual intent ages were analysed using a one-way ANOVA (see Table 10) as the assumption of homogeneity of variance was met (**F**(5, 882) = .943, p = .452). The one-way ANOVA did not signify any statistically significant differences between employment status and sexual intent, **F**(5, 882) = 1.569, p = .116.

Table 10

Employment status and sexual intent scores

Employment Status	Mean	Standard Deviation
Full-time Education	3.05	1.243
Part-time Education	3.33	1.283
Employed	3.00	1.080
Not in Employment or Education	3.07	1.111
Retired	2.67	.901

Would rather not say	2.63	1.061

Finally, employment status and participants ratings of their sexual experience were analysed. The Levene's test showed the assumption of homogeneity was not met (**F**(5, 882) = 3.636, p = .003). Consequently, a one-way ANOVA incorporating a Welch test was performed and this indicated that there were significant differences between how participants rated their sexual experience and employment status, $F_{Welch}(5, 882) = 3.818$, p= .002. A Games-Howell post hoc test showed that was a retired participant's (M= 5.52, SD= 1.244) rated their sexual experience to be borderline significantly higher compared to participants in full-time education (M= 4.69, SD= 1.828), p = < .050.