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ORIGINAL PAPER

# **Consenting to Sexual Activity: The Development and Psychometric Assessment of Dual Measures of Consent**

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Abstract Sexual assault prevention efforts have focused on educating students to obtain consent as a mechanism to reduce sexual assault, yet little is known about how college students consent to sex. Additionally, there are currently no measures available to assess students' consent to sex. The current study aimed to better understand college students consent by using a systematic approach to develop validated measures of sexual consent. This study integrated mixed methods via three phases and two waves of data collection to develop two measures of consent. In Phase 1, qualitative data were collected from college students (n = 185) to inform the design of quantitative measures aimed at assessing sexual consent at last sexual intercourse. In Phase 2, items were written for the closed-ended quantitative instrument and reviewed by a team of experts, educators, and clinicians. In Phase 3, a quantitative survey was administered to college

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Department of Applied Health Science, School of Public Health-Bloomington, Indiana University, Bloomington, IN, USA students (n = 660) which included the measures of consent developed from the Phase 1 data; the measures were assessed for their psychometric properties. Exploratory factor analyses were utilized to assess the measures and resulted in five factors each for both consent scales. Both scales had high internal consistency reliability, showed gender differences, and showed differences across relationship status (single vs. in a relationship). The two newly developed measures assess unique constructs of consent and demonstrate assessments of specific concepts. Our findings provide an important contribution to the field of sexuality as these measures can be used in future research to better understand sexual consent.

Keywords Sexual consent · Sexual assault · College students

# Introduction

Sexual Assault Among College Students

Sexual assault is highly prevalent in the U.S. as 15–40% of women experience a sexual assault during their lifetime (Fisher, Cullen, & Turner, 2000; Tjaden & Thoennes, 2006) with college women at an increased risk compared to women in the general population (Daigle, Fisher, & Cullen, 2008). Armstrong, Hamilton, and Sweeney (2006) suggested that college women are at an increased risk because the college environment creates a social culture of institutional acceptance of sexual assault via rape-supportive policies and social norms. Although sexual assault prevention efforts have been implemented on college campuses to reduce rates of sexual assault (Carmody, 2005), research indicates that rates have not declined for several decades (Adams-Curtis & Forbes, 2004; Bachar & Koss, 2001; Marine, 2004; Sampson, 2002). Sexual assault is often defined as *nonconsensual* sexual activity obtained through force, threats, intoxication or intimidation (Koss et al., 2007). A great deal of sexual assault prevention programming for college students is aimed at encouraging college students to obtain consent in the context of sexual dyads (Donat & White, 2000). However, little research has examined college students' conceptualizations of consent and, consequently, there is a lack of validated measures which assess consent to sexual activity. Given the heightened risk in this population (Daigle et al., 2008), measures aimed at assessing college students' consent to sex may help researchers better understand consent and consequently improve prevention efforts.

# Theorizations of Sexual Consent

A more comprehensive approach to assessing consent is needed (Beres, 2007). Muehlenhard (1995/1996) discussed sexual consent in a report from the Sexuality Information and Education Council of the U.S. (SIECUS), questioning what it really means to consent to sexual activity. Muehlenhard theorized that consent could be defined in two ways: (1) as a mental act, by which consent is defined as an internal decision about one's willingness to engage in sexual activity or (2) as a verbal act, meaning an expression of willingness to engage in sexual activity.

Both conceptualizations of consent, taken separately, may be flawed in ways specific to the conceptualization itself. For example, when consent is defined as a mental act, or as an internalization of feelings towards willingness to engage in sexual activity, it is nearly impossible for another person to know whether someone has consented (Muehlenhard, Powch, Phelps, & Giusti, 1992), forcing people to make inferences about someone else's willingness to engage in sexual activity which may or may not be accurate. However, verbal consent, or an overt verbalization of willingness to engage in sexual activity, does not align with many college students' conceptualization of a sexual encounter (Greer & Buss, 1994; Humphreys & Herold, 2003; Sawyer, Desmond, & Lucke, 1993). Furthermore, previous research indicates that people commonly report engaging in consensual sexual behavior in which an explicit verbal consent does not occur (Muehlenhard et al., 1992; O'Sullivan & Byers, 1996). Additionally, in some instances, consent may be assumed in a sexual encounter unless someone says no or resists (Hickman & Muehlenhard, 1999; Jozkowski & Peterson, 2013; Jozkowski et al., 2013).

These two conceptualizations each address aspects of consent that need to be better understood. Muehlenhard (1995/ 1996) highlighted that consent may be something verbally or behaviorally expressed externally as well as something that is internally felt or experienced. Consent is commonly conceptualized as one-dimensional, usually aligning with the verbal/ behavioral conceptualization. However, by utilizing this limited scope to study and understand consent, other important aspects may be overlooked.

#### Consent Literature

Consent is understudied compared to the rape/sexual assault literature (Beres, 2007). Existing consent research focuses primarily on verbal or behavioral consent (i.e., behavioral or verbal indicators that externally express one's willingness to engage in sexual activity, referred to as "external consent" hereafter). For example, Hall (1998) asked college students whether they indicated yes to sex during their most recent sexual experience through either verbal or non-verbal actions. Participants were also asked to indicate if explicit, verbal permission was given to progress to the next behavior in a sequence of behaviors leading to sexual intercourse. Hall found that permission for sexual activity was mainly given non-verbally; however, the more intimate the behavior, the more likely permission was given verbally. Hickman and Muehlenhard (1999) asked college students to describe how consent to vaginal-penile sex was communicated in fictitious vignettes. They found that college students' conceptualizations of external consent consisted of a range of behaviors which were categorized as indicators of consent according to whether or not they were direct or indirect and whether or not they were verbal or non-verbal.

Although consent research tends to focus on the external conceptualization of consent, researchers have begun to consider Muehlenhard's (1995/1996) theorization of mental consent (i.e., the internal feelings of willingness which inform the decision to engage in sexual activity, referred to as "internal consent" hereafter). For instance, Peterson and Muehlenhard (2007) examined college women's conceptualization of sexual wantedness and sexual consent, finding that the two may not always be linked (i.e., people may engage in consensual sex they do not want and want sex they do not consent to). Their model distinguished between an internal wanting/desiring/wishing for sex and internal feelings of consent/agreement/willingness to engage in sex, implying that first there are internal feelings associated with consent to sexual behavior, such as levels of wantedness and agreement, and, second, that these feelings are different from external indicators of consent.

Other research discussing concepts such as compliant sex (i.e., sex that is internally unwanted but externally agreed to (Walker 1997) and token resistance (i.e., sex that is internally wanted but not initially agreed to with regard to external verbal/behavioral cues) (Muehlenhard & Hollabaugh, 1988; Muehlenhard & Rodgers, 1998) also acknowledges that there are internalized feelings (want/agreement) associated with willingness to engage in sexual activity which are distinct from external verbal or behavioral indictors of consent. This approach adds another layer of complexity to understanding and assessing people's consent to sexual activity.

Contributing to empirical efforts to better describe and understand sexual consent, Humphreys and Herold (2007) and Humphreys and Brousseau (2009) developed the Sexual Consent Scale-Revised (SCS-R) to assess people's attitudes and

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beliefs regarding how sexual consent should be and is negotiated between sexual partners. Their measure was not intended to assess college students' perceptions of how they externally communicate consent or how they internally experience their feelings of willingness to engage in sexual activity during an actual sexual event; such measures have yet to be developed. Event-level measures (i.e., assessing feelings, actions or behaviors in relation to a specific sexual event) of internal and external consent are unique in that they provide a snapshot assessing feelings and actions/behaviors which occur during a single sexual event. By assessing event-level measures of consent, researchers can better understand the feelings that were experienced which led an individual to consent to sex as well as his or her expressions which indicated that consent.

## The Current Study

Given the lack of validated measures to assess internal and external conceptualizations of sexual consent among college students, the current study sought to address the following study aims:

- 1. Develop a clear understanding of how college students describe their conceptualization of internal and external consent.
- 2. Articulate the constructs of sexual consent and use a systematic process for the purpose of developing event-level measures of internal consent and external consent in order to assess consent at the last sexual event. These measures would serve to assess both conceptualizations of consent presented by Muehlenhard (1995/1996) and will provide a snapshot of information regarding consent to sexual activity during an actual event.
- 3. Assess the psychometric properties of the two measures.

We hypothesized that gender and relationship status differences would emerge across the proposed measures. These differences were anticipated because Price (1996) found gender differences in women's and men's interpretation of the Antioch Policy on Sexual Consent, which suggested "fundamental differences between women and men with regard to how sexual consent is understood." Additionally Hall (1998) and Jozkowski, Peterson, Sanders, Dennis, and Reece (2013) found that there were gender differences in communication of consent and Humphreys (2007) also found differences in perceptions of consent across gender and relationship history.

# Method

# Procedure

The event-level internal and external measures were developed over the course of three phases: Phase 1 included a review of literature, item-elicitation, and content analysis; Phase 2 consisted of item development and writing, review of items by leading experts and practitioners, and revision of item pool; and Phase 3 consisted of the quantitative survey administration and psychometric assessment.

# Scale Development Phase 1

The purpose of Phase 1 was to conduct a comprehensive literature review and collect data from college students (n = 185) via an open-ended item-elicitation self-report survey. The literature review provided a foundation for the open-ended questions used in the item-elicitation survey. The open-ended questions were used to elicit responses from college students in order to provide a comprehensive list of concepts utilized for item-writing in Phase 2. Conducting an item-elicitation before writing items intended for a new population, addressing new constructs helps ensure that the instrument is relevant and culturally appropriate to the population and context (Hinkin, 1998; Worthington & Whittaker, 2006).

The open-ended questions elicited internal feelings related to willingness to engage in sexual activity and non-willingness to engage in sexual activity as well as verbal and behavior cues associated with willingness and non-willingness to engage in sexual activity in order to achieve a comprehensive understanding of the language students used regarding consent. A content analysis was utilized to assess data and to group conceptually similar responses together in order to determine potential themes in how college students conceptualized both internal and external consent to sex (Middlestadt, Bhattacharyya, Rosenbaum, Fishbein, & Shephard, 1996). A more detailed description of the study procedures and data analysis for this phase of the study can be found in Jozkowski et al. (2013).

#### Scale Development Phase 2

The purpose of Phase 2 was to utilize the data collected and analyzed in Phase 1 in the development of two initial pools of items—one related to internal consent to vaginal-penile sex and the other related to external consent to vaginal-penile sex.

After all open-ended items were analyzed and coded, we looked for specific themes related to both internal and external consent to guide item writing. Eleven themes emerged describing internal consent and 10 themes emerged describing external consent during Phase 1. Item writing was performed by the first author in consultation with the other authors, sexual assault prevention educators, and a sex therapist with expertise in sexual assault and rape. The team reviewing items included six individuals: three experts in sexuality, sexual assault, and sexual consent/communication and three sexual assault prevention educators, one of whom is an experienced sex therapist, working with sexual assault victims and perpetrators. The approach to item-writing and revision for both scales was expansive in that all items of possible relevance were included in the initial pool of items for each of the two scales derived from the corresponding open-ended items.

Item Development and Revision Process-Internal Consent Scale In developing the Internal Consent Scale (ICS), an initial pool of 78 items was prepared by the first author based on results from Phase 1. The items, reflecting the 11 different themes, were then reviewed by the team described. The original pool of items included feelings that were associated with consent and non-consent. The research team decided that non-consent items were not relevant to this particular scale, however, the non-consent items derived from Phase 1 did provide validation for the consent items as they tended to address similar concepts but on the opposite extreme (i.e., in Phase 1, participants indicated "want" as a feeling associated with consenting to sex whereas "not wanted" emerged under the feelings associated with non-consent). The research team also removed items that seemed to assess variables associated with internal feelings of consent, but were not actually feelings in and of themselves (e.g., sober, drunk, sexy, attractive). Such terms were added to the survey to assess the extent to which these feelings would influence internal and external consent; however, they were not included in the scales measuring internal and external consent. Lastly, redundant items were also removed.

After item removal, the team decided to add two additional items which addressed feelings associated with a physical response or arousal because the underlying concept of such feelings emerged in the data. These two items included: (1) genitally aroused and (2) flushed. In total, 39 items were included in the ICS, which reflected six of the 11 different themes identified from the Phase 1 data.

Item Development and Revision Process-External Consent Scale In developing the External Consent Scale (ECS), an initial pool of 67 items was developed based on the results of Phase 1. The items reflected nine different themes and matched closely with the six factors of consent to vaginal-penile sex derived from Hickman and Muehlenhard (1999). Four of the themes derived in the current study matched exactly with four factors from Hickman and Muehlenhard: (1) direct verbal cues, (2) direct nonverbal cues, (3) indirect verbal cues, and (4) indirect nonverbal cues. Additionally, Hickman and Muehlenhard's "no response signals" factor (which included items such as "I would not hesitate" and "I would not say no") is conceptually similar to our theme labeled "Non-resistant/ passive signals." One additional theme labeled "Reciprocating Behaviors," emerged in the current study, which was not discussed by Hickman and Muehlenhard. This theme reflected items in which people indicated their consent by reciprocating their partners' initiation or advances to engage in sexual behavior.

After the pool of external consent items were generated, the list was then reviewed by the same team described above. Redundant items were removed which significantly reduced the item pool. In a final revision stage, two items were readded to the scale using new wording to capture unique aspects of external consent ("I just kept moving forward in sexual behavior/actions unless my partner stopped me" and "I did not do anything; it was clear from looking at me that I was willing to engage in sexual activity"). The final ECS utilized in the Phase 3 included 20 items.

Item Refinement In the development of both scales, items were generated to be at an appropriate reading level for college students and were assessed for suitable readability. Items were written for both scales to be sufficiently redundant and comprehensive and appeared to adequately cover the constructs of internal and external consent in order for further assessment and reduction to be conducted in Phase 3 (Clark & Watson, 1996; Mueller, 1986). For the ICS, participants used a four-point Likert scale to indicate the extent to which they agreed that they experienced the specific feeling during their last sexual encounter. A neutral option was not given in order to force participants to commit to a choice rather than opt to respond neutrally to items that they may perceive as sensitive in nature (DeVellis et al., 1990). The four point response option was also chosen to enhance the likelihood of variation among items (DeVellis et al., 1990) while providing a small number of response options so that the participant had the ability to discriminate meaningfully between choices (DeVellis, 2003; Groves et al., 2009). The ECS utilized dichotomized response choices as either yes or no. Because items were written based on the findings from the item-elicitation survey, they were intended to reflect the language and specific words used by college students.

## Scale Development Phase 3

The purpose of Phase 3 was to administer a quantitative survey including the items developed in Phase 2 in order to collect data on both the ICS and ECS items. The goal of collecting data on both sets of scale items was to reduce the number of items in the final versions and to test the reliability and validity of both scales as well as to examine the extent to which these two scales may be related.

A total of 706 students enrolled in introductory health courses at a large midwest university participated. In order to participate, students had to be 18 years of age or older and currently enrolled in classes. Introductory health courses were chosen for recruitment because they are taken as electives by students across the university and therefore represent a diverse range of students in

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Table 1	Demographic characteristics and gender differences ( $n = 660$ )

Characteristic	Female n (%)	Male <i>n</i> (%)	Differences by gender	р
Gender	448 (67.9)	211 (32.0)		
Age			t = 1.20, df = 684	ns
18–20	247 (55.1)	103 (48.8)		
21–23	184 (41.1)	99 (46.9)		
24 and up	17 (3.8)	9 (4.3)		
Race/ethnicity			$\chi^2 = 10.88,$ df = 5	ns
White	372 (83.0)	157 (74.4)		
Black or African American	29 (6.5)	23 (10.9)		
Latino or Hispanic	10 (2.2)	6 (2.8)		
Asian or Asian American	22 (4.9)	15 (7.1)		
Bi or Multiracial	13 (2.9)	5 (2.4)		
Another race or ethnicity	5 (2.4)	2(0.4)		
Class standing			$\chi^2 = 10.74,$ df = 5	ns
Freshmen	90 (20.1)	49 (23.2)		
Sophomore	123 (27.5)	51 (24.2)		
Junior	126 (28.1)	45 (21.3)		
Senior and grad student	109 (24.3)	66 (31.3)		
Sexual orientation			$\chi^2 = 10.02,$ df = 4	ns
Heterosexual/straight	425 (94.8)	198 (93.8)		
Homosexual/gay/ lesbian	3 (0.7)	7 (3.3)		
Bisexual	16 (3.6)	3 (1.4)		
Questioning	4 (0.9)	3 (1.4)		
Relationship status			$\chi^2 = 14.21,$ df = 5	.02
Single and not dating	125 (27.9)	65 (30.8)		
Single but dating/hanging out with someone	111 (24.8)	71 (33.6)		
In a relationship/married	205 (45.8)	73 (34.6)		
Another relationship status	7 (1.6)	2 (0.9)		
Sexual relationship status			$\chi^2 = 9.98,$ df = 4	ns
Exclusive/monogamous	211 (47.1)	81 (38.4)		
Non-exclusive/non- monogamous	29 (6.5)	19 (9.0)		
Casual sexual encounters	81 (18.1)	62 (29.4)		
Not currently engaged in sexual activity	126 (28.1)	48 (22.7)		
Greek affiliation			$\chi^2 < 1, df = 5$	ns
Involved in Greek life	102 (22.8)	50 (23.7)	,, , <u>, , , , , , , , , , , , , , , , ,</u>	
Not involved in Greek life		161 (76.3)		

Age was treated as a continuous variable in order to assess mean difference by gender status terms of age, class standing, and course majors. During the last 30 min of class, students were invited to participate in a study about sexual decision making and communication. They were asked to complete an anonymous survey consisting of 269 closed ended items and one open-ended item. All responses were anonymous and participation in the survey was voluntary. Students had the option of separately entering their email address into a drawing for a chance to win a \$50 gift card as incentive for participation; however, their email could not be connected to their survey responses. The response rate was 100% as no student declined to participate. All students met study inclusion requirements; however, data were excluded from nine participants dues to incomplete responses and data were excluded from an additional 37 participants because they did not complete the items of interest (i.e., the internal and external consent items). The final sample utilized in the current analyses consisted of 660 students. The study protocol was approved by the Institutional Review Board.

# Participants

As shown in Table 1, the largest proportion of participants were female (n = 448, 67.9 %). Participants were primarily White (n = 529, 80.2 %), between the ages of 18 and 24 years old (n = 634, 96.1 %), and ranged relatively evenly in terms of year in school. Most participants identified as heterosexual (n = 623, 94.4 %). Approximately half of the participants indicated a single relationship status and about a quarter of the participants reported membership in a fraternity or sorority. As shown in Table 1, only relationship status had a significant differences ( $\chi^2 = 14.21$ , p = .022) by gender. Given this difference and previous research indicating that perceptions and indicators of consent differ based on relationship status (Beres, Herold, & Maitland, 2004; Humphreys, 2007), comparisons for scale development were made across gender and relationship status.

#### Measures

The closed-ended items utilized for the current study consisted of (1) questions addressing demographic characteristics, (2) 39 items assessing internal consent, (3) 20 items assessing external consent, (4) the Token Resistance to Sex Scale (TRSS) (Osman, 1995), and (5) the Illinois Rape Myth Acceptance Scale, Short Form (IRMA) (Lonsway & Fitzgerald, 1994; Payne, Lonsway, & Fitzgerld, 1999); the latter two scales were used to assess construct validity.

#### Token Resistance to Sex Scale

The TRSS was developed to assess the extent to which participants believe that women use token resistance (i.e., saying no when the person intends to consent to sexual activity) (Muehlenhard & Hollabaugh, 1988; Muehlenhard & Rodgers, 1998) in response to sexual advances initially but at some point will actually engage in sexual activity (Osman, 1995). Endorsement of token resistance has been documented as an important determinant of perceptions, opinions, and outcomes of date rape (Muehlenhard, Friedman, & Thomas, 1985; Muehlenhard & Hollabaugh, 1988; Muehlenhard & Linton, 1987). The TRSS is a 7-point, eight item measure ( $\alpha = .83-.87$ ) (Osman, 2003, 2004, 2007) which assesses the situational factors associated with this belief; it was utilized to assess construct validity.

#### Illinois Rape Myth Acceptance Scale

Rape myths are "attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women" (Lonsway & Fitzgerald, 1994, p. 134); their existence contributes to a climate which is "hostile to rape victims" (Burt, 1980). The IRMA Scale short-form is a 7-point, 25-item measure developed to assess people's endorsement of such attitudes and beliefs, with high test–retest stability (Payne et al. 1999). Previous research has found that endorsement of rape myths is associated with more aggressive behavior toward women, endorsement of more traditional attitudes towards women, and engagement in sexual assault behavior (Burt, 1980; Lonsway & Fitzgerald, 1995; Schewe, 2002).

# Analyses

Exploratory factor analysis was used as an item-reduction technique to assess the internal and external scales. Cronbach's  $\alpha$  was used to assess the internal consistency reliability of the each of the scales and their corresponding factors Analyses of variance (ANOVA) were also conducted to assess known-group validity by comparing the two consent measures and their respective factors across gender and relationship status. Several steps were conducted to determine the number of factors that would be retained as well as the factor structures. Internal consistency reliability scores were assessed for both scales. Cronbach's  $\alpha$  was calculated for the entire ICS and ECS as well as each of the factors.

# Results

Steps Utilized for Scale Development, Item Elimination, and Item Retention

Exploratory factor analysis utilizing varimax rotation was utilized to assess each scale separately resulting in five factors for each of the two scales. Correlations between the two full scales and their factors were assessed to examine the relationship between internal and external consent.

## Eigenvalues and Scree Plot

Initially, eigenvalues and the scree plot were utilized to determine the number of factor loadings; factors with an eigenvalue >1 were considered to be significant (Hair, Anderson, & Tatham, 1987) and were thus retained. This initially resulted in six factors for the ICS and five factors for the ECS. EFA was re-run with several different permutations of fixed factor loadings in order to determine the best conceptual and statistical fit (Cliff, 1988). The final number of factors retained was determined by a combination of theory and statistical results post item-elimination (Hinkin, 1998).

#### Examination of Factor Loadings and Correlation Matrix

In addition to utilizing eigenvalues and the scree plot, factor loading values were also utilized in order to consider itemelimination which influenced the number of factors. In order for an item to be retained, a factor loading cutoff was established at 0.5 (Comrey & Lee, 1992; DeVellis, 2003; Tabachnick & Fidell, 2007). It was determined that three items (dominant, calm, passionate) on the ICS did not load at 0.5 or higher on any factor even after fixing factors. Therefore, they were removed.

Factor loadings were also assessed for cross-loaded items (i.e., items which loaded on multiple factors at 0.3 or higher). Several items on both the ICS and ECS were cross-loaded. Items with a very small difference between the initial loading and the cross-loaded value, a poor conceptual fit on a given factor, or redundant items were removed. Cross-loaded items with a large difference between the initial loading and the cross-loaded value were examined in greater detail and were retained or removed based on redundancy with other items in the factor and conceptual fit. Eleven additional items were removed from the ICS and two items removed from the ECS. The final ICS retained 25 items with five factors ranging from three to seven items and the ECS retained 18 items also with five factors ranging in number of items from 3 to 5.

#### Scale Development

# Internal Consent Scale

The factor loadings values for each of the five factors for the ICS are shown in Table 2. Factor loadings ranged from 0.63 to 0.85 with the Consent/Wantedness Factor demonstrating the strongest loadings. All the internal items loaded at 0.63 or above indicting excellent to very good factor loading scores (Comrey & Lee, 1992). As can be seen in Table 2, the overall Cronbach's

#### **Table 2** Factor loadings for ICS (n = 660)

Factors	М	SD	SD Factor loadings				
			Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
ICS	3.42	0.45	Interna	l consen	t $\alpha = .95$	5	
Factor 1: Physical Response	3.26	0.67	Factor	1: $\alpha = .9$	1		
Rapid heart beat			.83	.14	.11	.12	.07
Flushed			.82	.11	03	.09	.06
Eager			.80	.24	.18	.05	.08
Heated			.79	.23	.18	.02	.08
Lustful			.79	.21	.12	.09	.13
Erect/Vaginally Lubricated			.67	.30	.31	.09	.10
Factor 2: Safety/ Comfort	3.39	0.59	Factor	2: $\alpha = .9$	4		
Secure			.33	.84	.09	.14	.15
Protected			.30	.83	.00	.13	.11
Safe			.08	.78	.26	.20	.27
Respected			.16	.74	.32	.19	.24
Certain			.34	.68	.13	.18	.21
Comfortable			.23	.63	.42	.17	.31
In control			.24	.63	.36	.14	.25
Factor 3: Arousal	3.56	0.54	Factor	3: $\alpha = .9$	3		
Aroused			.21	.27	.83	.23	.21
Turned on			.22	.27	.82	.22	.22
Interested			.25	.23	.74	.18	.28
Factor 4: Consent/Want	3.62	0.47	Factor	4: α = .9	3		
Consented to			05	.14	.24	.84	.27
Agreed to			.29	.19	.01	.83	.13
Wanted			06	.12	.24	.82	.29
Consensual			.27	.21	05	.85	.16
Desired			.05	.14	.33	.79	.14
Factor 5: Readiness	3.39	0.53	Factor	5: $\alpha = .9$	0		
Ready			.18	.29	.23	.17	.82
Sure			.11	.35	.20	.21	.78
Willing			.09	.12	.25	.32	.77
Aware of my surroundings			.10	.22	.09	.23	.74

The factor loadings in bold are where the items are loaded

for the ICS was 0.95 and all of the factors'  $\alpha$  scores were above 0.9, which is considered excellent (DeVellis, 2003).

# External Consent Scale

The factor loadings values for each of the items in the five factors of the ECS are shown in Table 3. Factor loadings ranged from 0.55 to 0.80. Thirteen items loaded above 0.63 indicating excellent to very good factor loading, three loaded between 0.6

and 0.63, and the remaining two items were between 0.5 and 0.6, indicating good to acceptable factor loading (Comrey & Lee, 1992). As can be seen in Table 3, the overall Cronbach's for the ECS was 0.84 and all of the factors'  $\alpha$  scores were above 0.67, which falls into the range of acceptable to very good scores (DeVellis, 2003; Nunnally & Bernstein, 1994).

#### Relationship Between Internal and External Consent

Each of the factors ranged in terms of their inter-item correlation score (0.5–0.8). As can be seen in Table 4, ICS and the ECS were significantly correlated with each other at p = .01. Additionally, all of the ICS and ECS factors correlated at p < .01, though the correlations were weak to moderate, except the No Response Signals factor and Borderline Pressure and Physical Response, reinforcing the relationship between the two measures. Lastly, the TRSS and IRMA scale significantly correlated with the full ICS and the first three factors and the IRMA scale significantly correlated with the full ECS and the first two factors.

#### Scale Development: Gender Comparisons

ANOVA was also conducted in order to examine main effects and the interaction effects for gender and relationship status with respect to mean scale and factor scores.

## Internal Consent Scale

As shown in Table 5, a significant interaction effect was found for the ICS and all of the factors except Physical Response with the differences in internal consent across relationship status influenced by gender. Across all comparisons, individuals in a relationship had had higher mean scores on the ICS and corresponding factors than single individuals. However, single men had higher mean scores than single women. Physical Response also did not demonstrate any significant main effects.

# External Consent Scale

As shown in Table 5, a significant interaction effect occurred for the Nonverbal Behaviors factor of the ECS. Again, like the ICS, the differences in consent scores across relationship status was dependent on gender as men in general reported higher scores than women but individuals in relationships scores much higher than single individuals. Additionally, main effects for gender were found on Passive Behaviors, Borderline Pressure, and No Response Signals factors. Men reported higher scores than women on the Borderline Pressure factor indicating that they utilized this external cue to indicate consent more frequently than did women. However, women scored higher on both Passive Behaviors and No Response Signal indicating that women more frequently

# **Table 3** Factor loadings for ECS (n = 660)

Factors	М	SD	Factor loadings				
			Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
ECS	0.57	0.22	External	consent $\alpha =$	.84		
Factor 1: Nonverbal Behaviors	0.86	0.25	Factor 1:	$\alpha = .78$			
Increased physical contact			.79	.21	.04	.01	.04
Engaged in some sexual activity such as kissing or foreplay			.72	.20	01	.07	.02
Touched partner			.72	.07	.15	.17	.06
Used non-verbal cues			.71	.19	05	.01	.06
Removed mine and/or partner's clothing			.57	.15	.23	.25	08
Factor 2: Passive Behavior	0.72	0.36	Factor 2:	$\alpha = .81$			
Did not resist partner's attempts			.19	.80	.18	.07	.03
Did not say no or push partner away			.21	.77	.00	.07	.09
Let sexual activity progress to intercourse			.14	.76	.15	.10	.05
Reciprocated partner's advances			.29	.60	09	.34	.14
Factor 3: Communication/Initiator Behavior	0.50	0.38	Factor 3:	$\alpha = .79$			
Initiated behavior and checked to see if partner reciprocated			.32	.21	.68	.12	.12
Used verbal cues such as communicating interest in sex or asking partner			.13	.22	.62	.25	05
Indirectly communicated or implied interest			.17	.31	.61	.14	.14
Factor 4: Borderline Pressure	0.37	0.36	Factor 4:	$\alpha = .748$			
Shut or closed door			.01	.05	.24	.77	.18
Took partner somewhere private			.02	.03	.22	.74	.23
Kept moving forward in sexual behavior unless partner stopped			.26	.30	25	.65	.01
Factor 5: No Response Signals	0.20	0.29	Factor 5:	$\alpha = .672$			
It just happened			13	.12	.19	06	.79
I did not say anything			.20	.10	.12	30	.55
I did not do anything, it was obvious			.13	.07	.11	.14	.76

Items have been shortened to conserve space. See Appendix for a full list of the items in each factor

The factor loadings in bold are where the items are loaded

**Table 4** Correlation matrix between ICS and internal factors\*ECS and external (n = 660)

Factors	Internal consent								
	Full Internal	Physical Response	Safety/Comfort	Arousal	Consent/Want	Readiness	TRSS	IRMA	
External consent									
Full External	.23**	.17**	.15**	.19**	.21**	.21**	02	09*	
Nonverbal Behaviors	.23**	.17**	.16**	.23**	.20**	.21**	04	12*	
Passive Behaviors	.18**	.14**	.09**	.13**	.21**	.15**	03	08*	
Comm/Initiator Behavior	.16**	.20**	.11**	.03**	.12**	.01**	.02	01	
Borderline Pressure	.17**	.056	.14**	.18**	.15**	.17**	.01	04	
No Response Signals	.02	02	.01	.09*	.00	.06	04	05	
TRSS	09*	.10**	10**	08*	.02	06		.84**	
IRMA	10**	12**	.08*	10*	.02	08	.84**		

\*\**p* <.01; \**p* <.05

utilized these cues to indicate their consent compared to men. Main effects were also found on Borderline Pressure for relationship status. However, upon closer examination, gender differences was mainly driving relationship status main effects as single men scored higher than men in a relationship, yet women in a relationship scored higher than single women.

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Table 5 Rel	ationship status $\times$ gender	ANOVA: mean differences on inte	ernal and external consent scores $(n = 660)$
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Dependent variables	Independent va	riables	Interaction F	Group differences			
	Single			In a relationship			
Scale score	Male M (SD) n = 136	Female M (SD) n = 236	Male M (SD) n = 75	Female M (SD) n = 212		Gender F	Rel. status F
ICS	3.42 (0.44)	3.30 (0.44)	3.52 (0.46)	3.51 (0.42)	3.44**	2.53	2.22
Physical Response	3.32 (0.63)	3.28 (0.65)	3.32 (0.66)	3.24 (0.70)	<1	<1	1.50
Safety & Comfort	3.20 (0.60)	3.41 (0.57)	3.53 (0.56)	3.54 (0.55)	21.47**	4.12*	5.06*
Arousal	3.61 (0.53)	3.40 (0.55)	3.73 (0.51)	3.64 (0.47)	16.40**	12.00**	2.02
Consent/Want	3.58 (0.49)	3.50 (0.50)	3.68 (0.52)	3.74 (0.40)	18.22**	<1	3.05
Readiness	3.40 (0.55)	3.21 (0.55)	3.47 (0.53)	3.54 (0.47)	20.08**	1.87	8.00
ECS	0.58 (0.25)	0.56 (0.22)	0.57 (0.24)	0.59 (0.20)	.688	<1	<1
Nonverbal Behaviors	0.85 (0.26)	0.82 (0.28)	0.89 (0.22)	0.89 (0.21)	6.77**	<1	<1
Passive Behaviors	0.59 (0.40)	0.76 (0.33)	0.66 (0.40)	0.77 (0.32)	1.49	22.10**	<1
Comm/Initiator Behavior	0.47 (0.38)	0.49 (0.38)	0.45 (0.39)	0.54 (0.37)	<1	3.16	<1
Borderline Pressure	0.53 (0.37)	0.29 (0.36)	0.43 (0.35)	0.33 (0.34)	1.31	30.82**	5.70*
No Response Signals	0.18 (0.29)	0.25 (0.31)	0.18 (0.28)	0.20 (0.28)	1.01	3.78*	1.01
Token Resistance to Sex	5.06 (14.22)	3.42 (10.53)	3.78 (11.20)	2.11 (1.48)	2.36	4.02*	3.67*
Rape Myth Acceptance	5.39 (16.47)	3.61 (12.64)	3.35 (11.31)	2.30 (8.12)	2.64	3.97*	3.64*

\*\* p <.01; \* p <.05

# Token Resistance and Rape Myth Acceptance

As shown in Table 5, there were significant gender and relationship status differences in mean scores of token resistance and rape myth acceptance. Men scored higher on both compared to women, and single individuals scored higher compared to those in a relationship indicating that men and single people were more likely to endorse token resistance and rape myths.

# Relationship Between Consent Scales and Token Resistance and Rape Myth Acceptance

Finally, correlations between both consent scales and the TRSS and IRMA scale were examined. These analyses were conducted separately for men and women given the gender differences in scoring reported above. These measures were used to help assess construct validity of the consent scales.

As shown in Table 6, there were significant associations between the consent scales and token resistance and rape myth acceptance when the data were parsed by gender. With regard to men, token resistance significantly correlated with the full ICS, Internal Factor 3 (Arousal), Internal Factor 5 (Readiness), and External Factor 4 (Borderline Pressure Behaviors). Rape myth acceptance was also significantly correlated with the full ICS, Factor 1 (Physical Response), Factor 2 (Safety/Comfort) and Factor 5 (Readiness) as well as Borderline Pressure on the ECS.

For women, a different pattern emerged in that there was no significant association between the consent scales and token resistance and very little between the consent scores and rape myth acceptance. For instance, for women, rape myth acceptance correlated only with External Factors: Nonverbal Behaviors, Passive Behaviors and Communication/Initiator Behaviors.

# Discussion

#### Reliability and Validity

The current study sought to provide evidence for the reliability and validity of two new scales developed to assess consent during a sexual event. The results suggested that both scales were a reliable and valid assessment of an individual's internalized feelings of consent to a sexual event (ICS) as well as their external behavior or verbal indicators of consent to that event (ECS). Findings indicated that both scales loaded onto five factors and that each corresponding factor held together in a logical fashion. The multiple factors making up each scale indicated that there were different components that constituted both types of consent. Both scales and their factors demonstrated high internal consistency reliability; the ECS's close alignment of items and factors with previous research (Hickman & Muehlenhard, 1999) and the ICS's conceptual similarity to Peterson and Muehlenhard's (2007) model of consent and wantedness helped establish construct validity. Additionally, the group differences in scales and factors by gender and relationship status helped to establish known-group validity.

Table 6	Correlations between internal and external consent with token
resistanc	te and rape myth acceptance by gender ( $n = 660$ )

Scale items	Men (n = 2)	11)	Women $(n = 448)$		
	Token Resistance	Rape Myth Acceptance	Token Resistance	Rape Myth Acceptance	
Internal Full	18**	18*	04	06	
Physical Response	19	20**	04	08	
Safety & Comfort	17	16*	07	04	
Arousal	23*	24	.01	02	
Consent/Want	.06	.06	01	02	
Readiness	14*	.14*	01	04	
External Full	.01	04	05	13**	
Nonverbal Behaviors	04	04	04	14**	
Passive Behaviors	.02	03	04	11**	
Comm/ Initiator Behavior	.07	.06	01	05	
Borderline Pressure	.17*	.24*	04	08	
No Response Signals	07	05	04	06	

\*\* p <.01; \* p <.05

# Relationship Between Internal Consent and External Consent

As demonstrated by the correlation matrix, the ICS and ECS and their underlying factors were significantly correlated, indicating an association between the two types of consent which was anticipated given that both measures of consent assessed the same sexual event. The consistent correlations between the ICS and ECS and their corresponding factors further validated the notion that internal expressions align with external behavioral indictors. However, it is important to note that the strength of the relationship between external and internal consent was weak to moderate (r = .23, p < .01). This supports the conceptualization that internal and external consent are distinct concepts demonstrating that there is a need for two separate measures of consent as alluded to by Muehlenhard (1995/1996).

## Relationship to Gender and Relationship Status

Consent is a highly gendered issue. Previous research indicates that men and women express consent to sexual activity in different ways (Hall, 1998; Jozkowski et al., 2013) and that consent varies based on relationship status (Humphreys, 2007); therefore, it would be expected that gender and relationships status differences would exist among the two consent measures. Men scored higher on the ICS and its corresponding factors, except for Physical Response, indicating that men more highly experienced feelings associated with the given factors, which may speak to gender norms and the endorsement of the traditional sexual script (Gagnon & Simon, 2009). Men are expected to want sex and always be ready for sex; therefore may feel less inhibited about their internalized feelings regarding consent to engage in a sexual activity.

In contrast, young women may feel more conflicted in terms of their internalized feelings of consent as women often receive mixed messages about their sexuality and sexual expression. For instance, young women receive messages from media sources demonstrating to them that their expected role is to appear sexy, attract male attention, and engage in casual sex encounters (Armstrong et al., 2006; DeSantis, 2007). Yet, young women also receive messages that imply or overtly state that, if they do engage in many casual sexual encounters or dress too risqué, they will be labeled negatively, will not be considered desirable, and such behavior may result in negative repercussions related to their safety and health (Brown, 2002; DeSantis, 2007; Jhally, 2007; Kilborne, 2010; Muehlenhard, Friedman, & Thomas, 1985; Muehlenhard & McCoy, 1991; Shotland & Hunter, 1995; Wolf, 2009). Additionally, women may be concerned about their reputation because of the social expectation that women should avoid promiscuity yet also engage in sexual interactions (Bogle, 2008; DeSantis, 2007). Such conflicting expectations and social pressures in combination with women's own sexual desires and interests could result in women experiencing conflicted internal feelings regarding their willingness to engage in sex.

When examining gender differences in terms of external consent, some interesting findings emerged. Women scored higher than men on Passive Behaviors and No Response Signals, indicating that women were more likely than men to engage in such behaviors with respect to externally indicating their consent to sex which matches gendered expectations for women (Bogle, 2008; DeSantis, 2007; Gagnon & Simon, 2009). For instance, within the traditional sexual script, women are expected to be the more passive partner in sexual activity and respond to initiations made by their male partner as opposed to initiating activity themselves. Also consistent with this script, men scored higher on behaviors which were defined as borderline pressure. Again, such findings endorse traditional gendered scripted roles in that men have been gendered to be the sexual initiator and push sex on a partner in order to achieve sexual conquests (Armstrong et al., 2006; DeSantis, 2007).

Lastly, there were also differences in consent in regard to relationship status. Participants who reported being in a relationship scored higher on all of the internal consent measures, except Physical Response. This may indicate that being in a relationship allows a person to feel more confident in their internal willingness to engage in sex, perhaps because they are engaging in sex with a consistent, regular partner with whom they feel comfortable. In contrast, single people may be engaging in sex with someone with whom they are less familiar, and, therefore, may feel less secure, safe, or comfortable in the situation, which may impact their internal feelings of consent. In terms of external consent, participants who reported a single relationship status scored higher on the Borderline Pressure factor. This may suggest that single individuals, in particular single men, are more likely than those engaging in sex inside of a relationship to rely on borderline pressure/persuasive cues to indicate consent.

Relationship to Token Resistance and Rape Myth Acceptance

Findings indicated that the newly constructed consent measures did not correlate with token resistance or rape myth acceptance when examining the sample as a whole. However, when parsed by gender, there were some correlations between the consent measures and token resistance and rape myth acceptance. Although it was anticipated to see stronger relationships between the consent scales and the validated token resistance and rape myth acceptance scale, it makes sense that relationships only emerged when examining men and women separately and that more relationships emerged among men given that these issues are extremely gendered. The relationships that did emerge, however, do lend support for scale validity. For example, the borderline pressure factor on the ECS was positively correlated with token resistance and rape myth acceptance for men, indicating that men who endorsed more token resistance and rape myth acceptance were more likely to report engaging in borderline pressure behaviors to indicate consent. This finding suggests that perhaps men who endorse beliefs in behaviors, which seem to imply a disregard for consent, are more likely to engage in behaviors which are on the verge of pressure to indicate consent to sex. The relationships between the newly developed consent scales and token resistance and rape myth acceptance are preliminary and certainly warrant further research.

A possible reason a strong relationship did not emerge among the measures could be due to the nature of the different sets of measures. The TRSS and IRMA scale are assessments of attitudes and beliefs toward a particular construct whereas the newly developed consent measures are event-specific assessments of actual experiences; therefore, it may be difficult to find a relationship between global measures of attitudes and beliefs and event-specific measures of feelings and behaviors. The findings presented here suggest that there is something to be gained by measuring event-level activities as they assess different aspects of sexuality compared to overall global attitudes and beliefs measures. In addition, findings may also demonstrate that these two new scales actually measure unique constructs, as they did not show high overlap with existing measures designed to assess related but distinct concepts.

#### Limitations and Future Research

Although the current study demonstrated the reliability and validity of two new measures of consent to sexuality, the study was not without limitations. For example, there can be no evidence of the scales' temporal stability and split half reliability (DeVellis, 2003) given that the measures were event-focused and change invariably at each administration of the items. As a way to assess known-group validity, comparisons were made across gender and relationship status for each of the scales and their corresponding factors. Although there were group differences in the expected directions with regard to gender and relationship status, it is unclear if the sexual event being referred to when participants answered the consent items was actually within the context of the relationships status they indicated in the demographic section of the questionnaire. Lastly, data were collected at a large Midwestern university and therefore results may not be generalizable to all college students in the U.S. or across a period of time wherein changes in semantics and conceptualizations might be expected. These limitations point to the need for additional research that will further examine the psychometric properties of the ICS and ECS.

The measures could also be used to further assess differences in internal and external consent across a variety of contexts such as relationship status and behaviors engaged in. The current study found group differences in internal and external consent scores when those in relationships were compared to those who were single. But these event levels scales could be used to compare reports within subjects across different partners and/or different events even with the same partner. Additionally, consent may be influenced by contextual or situational factors; for example, consent may differ in situations where sex is socially expected to occur as opposed to where it is not expected or in situations where there is alcohol use as opposed to where there is not. Thus, it may be important to assess consent within these different situations. Lastly, the current sample was made of primarily heterosexually identified college students. Future research may benefit from examine the utility of these scales outside of this specific population.

# Contribution to Sexual Assault Prevention Education

Findings could also have implications for future assessments of sexual assault programming and the development of more effective and relevant sexual assault prevention education initiatives. Sexual assault prevention education efforts among college students largely focus on encouraging students to obtain consent as a means to reduce rates of sexual assault (Daigle, Fisher, & Stewart, 2009; Donat & White, 2000; Schewe, 2002). For the most part, this approach ignores the contextual, situational, and relational factors which may impact consent as the focus of programming is on obtaining consent in the context of a sexual dyad (Donat & White, 2000). Perhaps the best way to assess the impact of these different contexts on consent may be via daily diary methodology in order to assess how consent is internally felt as well as externally expressed at an event level, extended period of time, spanning a variety of situational and contextual factors and circumstances. The development of such measures can potentially help disentangle the issue of consent and perhaps lead to improved sexual assault prevention education programming. Additionally, such research could contribute to the body of knowledge in the fields of sexuality in general and sexual assault prevention specifically by providing a set of validated measures to better understand the issue of consent and its relationship to sexual assault and rape. Additional research may also help tease apart the potential impact of conflicting internalized feelings of consent (as suggested by Peterson and Muehlenhard, 2007) on external indicators of consent. Such findings could help sexual assault prevention educators more accurately articulate the various constructs of consent to help students better understand the multi-dimensions of consenting to sexual behavior.

# Appendix: List of Internal and External Consent Scale Items

Internal Consent Scale Factor 1: Physical Response

- 1. Rapid heart beat
- 2. Flushed
- 3. Eager
- 4. Heated
- 5. Lustful
- 6. Erect/vaginally lubricated

#### Factor 2: Safety/Comfort

- 7. Secure
- 8. Protected
- 9. Safe
- 10. Respected
- 11. Certain
- 12. Comfortable
- 13. In control

# Factor 3: Arousal

- 14. Aroused
- 15. Turned on
- 16. Interested

- Factor 4: Consent/Want
- 17. Consented to
- 18. Agreed to
- 19. Wanted
- 20. Consensual
- 21. Desired

# Factor 5: Readiness

- 22. Ready
- 23. Sure
- 24. Willing
- 25. Aware of my surrounds

# External Consent Scale Items

Factor 1: Direct Nonverbal Behaviors

- 1. I increased physical contact between myself and my partner
- 2. I engaged in some level of sexual activity such as kissing or "foreplay"
- 3. I touched my partner, showed him/her what I wanted through touch or increasing physical contact between myself and the other person
- 4. I used non-verbal cues such as body language, signals, flirting
- 5. I removed mine and/or my partner's clothing

# Factor 2: Passive Behaviors

- 6. I did not resist my partner's attempts for sexual activity
- 7. I did not say no or push my partner away
- 8. I let the sexual activity progress to the point of intercourse
- 9. I reciprocated my partner's advances

Factor 3: Communication/Initiator Behavior

- 10. I initiated sexual behavior and checked to see if it was reciprocated
- 11. I used verbal cues such as communicating my interest in sexual behavior or asking if he/she wanted to have sex with me
- 12. I indirectly communicated/implied my interest in sex (i.e. talked about getting a condom)

Factor 4: Borderline Pressure

- 13. I took my partner somewhere private
- 14. I shut or closed the door
- 15. I just kept moving forward in sexual behaviors/actions unless my partner stopped me

Factor 5: No Response Signals

- 16. It just happened
- 17. I did not say anything
- 18. I did not do anything; it was clear from my actions or from looking at me that I was willing to engage in sexual activity/sexual intercourse

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