DESIRE

Does it Matter Who You Feel Sexually Aroused By? Associations Between Sexual Arousal, Relationship Quality, and Sexual Satisfaction



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ABSTRACT

Background: Despite its integral role in normative sexual functioning, there is a dearth of research into the role of subjective sexual arousal within romantic relationships.

Aim: The current proof-of-concept study addresses this gap by investigating the associations between partner-induced sexual arousal, sexual arousal induced by others, and sexual satisfaction and relationship quality.

Methods: One hundred and sixteen heterosexual couples who had been together for an average of three and a half years completed an online survey. An Actor-Partner Interdependence Modelling framework was applied to analyze the dyadic data.

Outcomes: Participants completed the Perceived Relationship Quality Components (PRQC) Inventory and a single item global measure of sexual satisfaction derived for the current study.

Results: Feeling sexually aroused by one's romantic partner was positively associated with one's own sexual satisfaction and relationship quality. However, feeling sexually aroused by people other than one's romantic partner was negatively associated with one's own sexual satisfaction and relationship quality. These associations were found for both men and women.

Clinical Translation: Therapists and practitioners may need to place an emphasis on using strategies and techniques that specifically facilitate or heighten partner-induced sexual arousal, whilst helping couples to move away from those behaviors and situations which typically lead to sexual arousal induced by those other than their partner.

Strengths & Limitations: This proof-of-concept study provides novel findings that address the absence of research investigating the associations between sexual arousal and outcomes in romantic relationships. The well-powered dyadic study design enabled a rigorous test of the hypotheses. However, the study was cross-sectional in nature, the sample was somewhat homogenous, and assessments included brief measures of sexual arousal and sexual satisfaction.

Conclusion: The findings offer the first evidence to suggest that partner-induced sexual arousal and non—partner-induced sexual arousal have differential effects in terms of sexual satisfaction and relationship quality. This not only has a raft of clinical implications, but it provides the basis for several important avenues of future research on the role of subjective sexual arousal in romantic relationships. Lawless NJ, Karantzas GC, Mullins ER, et al. Does it Matter Who You Feel Sexually Aroused By? Associations Between Sexual Arousal, Relationship Quality, and Sexual Satisfaction. Sex Med 2022;10:100523.

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INTRODUCTION

Being sexually aroused by one's partner on a subjective level (ie, cognitive-affective^{1,2}) is thought to increase sexual motivation to engage in sexual activity with one's partner.^{3,4} However, despite being in an exclusive, monogamous relationship, it is

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possible that people other than a romantic partner may induce feelings of sexual arousal. But how does feeling sexually aroused by others affect the sexual and relationship outcomes experienced by people in monogamous romantic relationships? Can the experience of feeling sexually aroused by people other than one's romantic partner be associated with positive evaluations of the current romantic relationship? Or on the other hand, can non-partner-induced sexual arousal be deleterious to relationship evaluations? Furthermore, do feelings of sexual arousal by one's partner and/or others demonstrate similar or different associations with sexual and relationship outcomes? To date, research has not addressed these important questions. To address this gap, the current paper reports on a novel proof-of-concept study which investigated the associations between subjective sexual arousal (both partner-induced and non-partner-induced) and sexual satisfaction and relationship quality within a dyadic context.

Subjective Sexual Arousal and the Sexual Behavioral System

Subjective sexual arousal (the cognitive-affective experience of arousal) provides an input to the sexual behavioral system - a cybernetic control system - with the primary goal, at least in heterosexual individuals, to engage in sexual intercourse and successfully conceive. However, the functioning of the system is not only governed by achievement of the primary goal, but by a series of proximal goals regarding the experience of sexually satisfying interactions and the maintenance of quality romantic relationships, which increase the likelihood of partnered sexual activities in the future. In the sections that follow, we briefly outline the potential implications of partner-induced subjective sexual arousal and non-partner-induced sexual arousal in terms of the achievement of the sexual behavioral system's proximal goals of increasing sexual satisfaction and relationship quality in the romantic relationship. For the purposes of this study, sexual satisfaction is defined as the extent to which one is happy with their sexual relationship with their partner,8 whilst relationship quality is conceptualized as an overall evaluation of the extent to which a relationship encompasses qualities such as commitment, trust, satisfaction, intimacy, love, and passion.⁹

Partner-Induced Sexual Arousal: Implications for Sexual Satisfaction and Relationship Quality

Within the context of heterosexual, monogamous romantic relationships, feeling sexually aroused by one's romantic partner (partner-induced sexual arousal) should direct the sexual behavioral system in ways that enhance sexual and relationship outcomes. ¹⁰ In terms of sexual outcomes, feeling sexually aroused by a relationship partner should increase sexual motivation and the frequency of partnered sexual activity, ^{3,4} and in many cases, the physiological correlates of arousal (eg, penile erection in men and vaginal tissue swelling/lubrication in women) will follow. This may in turn increase the amount of pleasure and enjoyment

derived from sexual activity. ¹¹ In doing so, partner-induced sexual arousal is likely to contribute to an evaluation of a romantic relationship as sexually satisfying, by increasing both the pleasure and the frequency of sexual activity.

In terms of relationship outcomes, feeling sexually aroused by a partner should increase relationship maintenance processes such as fostering emotional intimacy, strengthening commitment and relationship trust, as well as engaging in loving and supportive behaviors that satisfy a partner's socio-emotional needs. When a person engages in a series of relationship maintenance processes such as these which are known to enhance relationship quality, one maintains the current relationship and maximizes opportunities for reproduction. To this end, partner-induced sexual arousal is likely to be associated with a person holding positive evaluations about the quality of their romantic relationship.

Non-Partner-Induced Sexual Arousal: Implications for Sexual Satisfaction and Relationship Quality

Despite being in an exclusive romantic relationship, it is possible that people other than a romantic partner may induce feelings of sexual arousal (non—partner-induced sexual arousal). Sexually arousing others may range from a flirtatious acquaintance at a party, to a provocatively dressed stranger on the bus, to a sexually attractive colleague. But how is feeling sexually aroused by those other than one's partner (non—partner-induced sexual arousal) associated with sexual and relationship outcomes?

On the one hand, feeling sexually aroused by someone other than one's partner may be positively associated with sexual and relationship outcomes. Sexual behaviors are, at least in part, determined by opportunities for sexual activity. 3,13 These opportunities are likely to present themselves most often with a current romantic partner given the close proximity and established sexual relationship between both members of the couple. Thus, when feeling sexually aroused by those outside of one's relationship, the functioning of the now-activated sexual behavioral system may be redirected towards the viable sexual partner to whom a person already has an existing bond, in order to satisfy their sexual needs. By extension, in order to maintain this close proximity and established relationship, and thereby enhance the likelihood of future sexual opportunities, non-partner-induced sexual arousal may also foster engagement in relationship maintenance behaviors that contribute to relationship quality.

On the other hand, it is also plausible that feeling sexually aroused by people other than one's exclusive romantic partner may be negatively associated with sexual and relationship outcomes. Sexual arousal is thought to direct one's attention, motivation, and behavior toward the sexual target of the arousal. 2,14 Non-partner-induced sexual arousal may therefore redirect time and resources — which would otherwise be directed towards partnered sexual activity and relationship maintenance behaviors — outside of the relationship. For instance, it may be that feeling sexually aroused by others would heighten attention towards

relationship alternatives and reduce commitment to the current relationship ¹⁵; thereby reducing evaluations of sexual satisfaction and the quality of the current relationship.

The Current Study

The current paper reports on a proof-of-concept dyadic study which aimed to provide preliminary evidence for the associations between subjective sexual arousal (partner-induced and non—partner-induced) and two widely researched key outcomes within a romantic relationship that are known to predict relationship stability: sexual satisfaction and relationship quality. ^{16–18} Given this was a proof-of-concept study which was theoretically grounded in the evolved functioning of the sexual behavioral system within heterosexual relationships, we tested our predictions by drawing on a sample of heterosexual couples. Couples needed to have been in a relationship for 6 months or more, as this is around the time when people develop strong emotional (i.e., attachment) bonds with their partners. ¹⁰ This criterion is widely used within relationship research on the study of heterosexual dyads.

It was hypothesized that partner-induced sexual arousal would be positively associated with sexual satisfaction and relationship quality (Hypothesis 1). With regards to non-partner-induced sexual arousal, two competing hypotheses were posited given that it was deemed equally plausible for non-partner-induced sexual arousal to be differentially associated with sexual satisfaction and relationship quality. Specifically, Hypothesis 2a stated that non-partner-induced sexual arousal would be positively associated with sexual satisfaction and relationship quality. Alternatively, Hypothesis 2b predicted that non-partner-induced sexual arousal would be negatively associated with sexual satisfaction and relationship quality.

METHOD

Participants and Procedure

Before data collection began, the study received ethics approval from the Deakin University Human Research Ethics Committee. A community sample of 116 heterosexual couples was then recruited via social media networking websites such as Facebook. To participate, couples had to be over 18 years of age, and in a monogamous heterosexual relationship for a minimum of 6 months (see results section for an overview of participant characteristics). As the current study was part of a wider dyadic observational study of couple functioning of which sexual arousal reflected one aspect, sexual arousal was not included in any of the advertisements for the study. Instead, the online advertisements outlined that the study was focused on understanding people's attitudes and behaviors across different aspects of relationship functioning within romantic relationships. These advertisements provided a link to the study website which outlined the study's aims and objectives. Couples who were interested in participating then made a time to attend the research laboratory on campus using an online booking system via the study website. Upon arrival, each member of the couple was provided with a tablet which displayed the Plain Language Statement (PLS). The PLS outlined the study aims and procedures. This was followed by obtaining informed consent from each member of the couple through an online form. Each member of the couple then independently completed a 45-minute online survey. All participants were given a couple ID, which allowed their data to be de-identified. This de-identified data was then stored on a secure research data repository at the university which was password protected.

Materials

The online survey consisted of demographic questions and a battery of measures assessing several facets of relationships including sexual arousal, sexual satisfaction, and relationship quality.

Sexual arousal was assessed in relation to one's own partner and in relation to people other than one's partner using two measures that were based on measures used by Gadassi and colleagues. 19 They provide brief, face valid, and internally consistent measures which assess two major facets of subjective sexual arousal, frequency and intensity. Partner-induced sexual arousal was measured using two items. The first item measured frequency of sexual arousal ("How often do you feel sexually aroused by your partner?"). Participants rated this item on a scale ranging from 1 (never) to 7 (all the time). The second item measured intensity of sexual arousal ("When you are sexually aroused by your partner, how intense is it?"). Participants rated this item on a scale ranging from 1 (not intense at all) to 7 (very intense). The two items were averaged to create an overall score of partner-induced sexual arousal, with higher scores indicative of greater partner-induced sexual arousal. The measure was found to have good internal consistency (H coefficient = 0.89).

Non-partner-induced sexual arousal was measured using two items similar to those used to assess partner-induced sexual arousal. The two items were "How often are you sexually aroused by people other than your partner?" and "When you are sexually aroused by people other than your partner, how intense is it?" Both items were measured on the same 7-point scales as the measure of partner-induced sexual arousal. The two items were averaged, with higher scores indicative of greater non-partner-induced sexual arousal. This measure was also found to have good internal consistency (H coefficient = 0.86).

Sexual satisfaction was assessed using a single item global measure of sexual satisfaction that was similar to other single item measures of sexual satisfaction used in previous studies. 20–22 It consisted of one face valid item: "On average, how happy are you with your sexual relationship with your partner?" The item was rated on a 7-point scale ranging from 1 (very unhappy) to 7 (very happy). Single item measures have been found to demonstrate similar convergent validity to widely used multi-item measures of the construct, 21 and are used across numerous studies investigating sexual satisfaction. 23

Relationship quality was assessed using the 18-item Perceived Relationship Quality Components (PRQC) Inventory. The PRQC includes items pertaining to different aspects of experiencing quality romantic relationships including commitment, intimacy, trust, passion, and love. For example, "How satisfied are you with your relationship?" and "How much do you trust your partner?" All items were rated on a 7-point scale ranging from 1 (not at all) to 7 (extremely). Relationship quality was assessed by averaging all of the items to create a global score, with higher scores indicative of greater relationship quality (H coefficient = 0.96).

Data Analysis

An Actor Partner Interdependence Model (APIM)²⁴ was used to analyze the data. Analysis of a Moment Structures (AMOS; version 27) was used to estimate the model. An APIM is a form of multilevel modeling in which the couple is the unit of analysis. Due to the dyadic nature of the data, partner's scores on the same variables are covaried to account for statistical interdependency. Furthermore, because the model includes the same measures from both members of the couple, two types of effects can be estimated as part of an APIM. The first type of effect is an actor effect - the relationship between an individual's score on one variable to their own score on another variable. The second type of effect is a partner effect – the relationship between an individual's score on one variable to their partner's score on another variable. Although this study made no predictions about partner effects, these effects were controlled for as part of the analyses to provide a rigorous test of the hypotheses. An apriori APIM power analysis was conducted using the R-based APIMPower application.²⁵ It was estimated that a total of 70 dyads were required to detect a small effect size ($\beta = 0.25$) with outcomes moderately correlated for within couples (r = 0.35), with a power of 0.80.

RESULTS

On average, couples were together for approximately three and a half years (M = 3.59, SD = 4.66). Participants ranged from 18 to 72 years of age, and women (M = 24.09 years, SD = 7.93) were slightly younger on average than men (M = 24.87 years, SD = 7.84). Fifty-two percent of the couples reported their relationship status as casually dating, 31% as steady dating and 17% reported their status as either cohabiting or engaged. Approximately 85% of the sample were of Anglo-Saxon background.

Descriptive statistics are presented in Table 1. On average, both men and women reported moderately high partner-induced sexual arousal (t [114] = .28, P = .83), and low to moderate non-partner-induced sexual arousal, though men reported feeling sexually aroused by others significantly more than women (t [114] = 5.17, P = .000). Overall, both men and women reported high relationship quality (t [114] = 1.78, P = .08), and moderately high sexual satisfaction (t [114] = .93, t = .35).

Table 1. Means and standard deviations for men and women

	Men (n = 116)		Women (n = 116)		Scale
Variable name	М	SD	М	SD	range
Sexual arousal by partner	5.39	0.87	5.15	0.92	1–7
Sexual arousal by others	3.04	1.41	2.17	1.14	1–7
Relationship quality	6.17	0.59	6.30	0.52	1–7
Sexual satisfaction	5.41	1.41	5.57	1.19	1–7

The direct associations between sexual arousal (partner-induced and non-partner-induced) and the outcome variables (sexual satisfaction and relationship quality) were modeled as an APIM. As a further test of the robustness of the predictions, a preliminary analysis was conducted controlling for the effects of relationship status, relationship length, and age in the APIM. The control variables did not significantly contribute to the prediction of men and women's sexual satisfaction and relationship quality above and beyond the effects of partner-induced and non-partner-induced sexual arousal (β s = 0.03–0.12, z = 0.35–1.32, ps = 0.19–0.77). Given these results of the preliminary analyses, age, relationship status and relationship length were not included in the final analyses.

As shown in Figure 1, when accounting for partner effects, partner-induced sexual arousal was significantly positively associated with men and women's own reports of sexual satisfaction and relationship quality. Furthermore, non-partner-induced sexual arousal was significantly negatively associated with men and women's own reports of sexual satisfaction and relationship quality. Moreover, gender invariance testing of the model paths (actor and partner paths) was conducted by comparing a model in which the same paths for men and women were constrained to equality (denoting no difference between men and women) and compared to a model without equality constraints. The gender invariance test revealed no significant differences in associations for men and women ($\Delta \chi^2(8) = 4.86$, P = .79). Of the eight partner effects that were controlled for in the model, only two were found to be significant (the same path for both men and women). Specifically, the association between a person's own partner-induced sexual arousal was positively associated with their partner's sexual satisfaction (see Figure 1).

DISCUSSION

The current proof-of-concept study investigated if feeling sexually aroused by one's partner (partner-induced sexual arousal) and feeling sexually aroused by people other than one's partner (non-partner-induced sexual arousal), were differentially associated with key outcomes in romantic relationships, namely, sexual satisfaction and relationship quality. In support of Hypothesis 1, the more that a person felt sexually aroused by one's partner, the

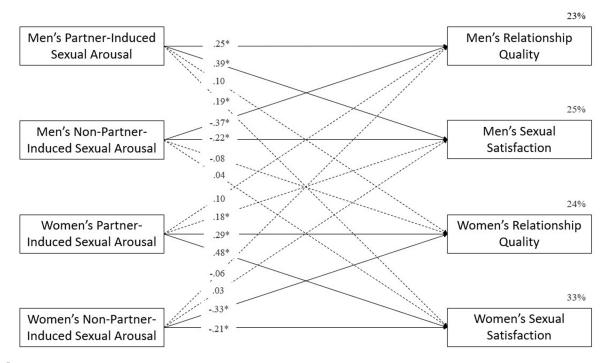


Figure 1. APIM Associations between Sexual Arousal, Relationship Quality and Sexual Satisfaction. Note: Solid lines depict actor effects. Dotted lines depict partner effects. An * denotes significant effects (P < .05). The percentages represent the variance explained in each outcome variable. For ease of interpretation, residual terms and correlations between IVs and between DVs are not included in the figure.

higher they rated their relationship quality and sexual satisfaction. In relation to non—partner-induced sexual arousal, the results supported Hypothesis 2b (as opposed to Hypothesis 2a). Specifically, the more someone felt sexually aroused by people other than their romantic partner, the lower they rated their sexual satisfaction and relationship quality.

The current findings highlight the importance of considering subjective sexual arousal for both men and women within monogamous, heterosexual romantic relationships. Partnerinduced and non-partner-induced sexual arousal accounted for between 23 and 33% of the variance in sexual and relationship outcomes with several of the modeled associations found to be moderate to large in magnitude. Furthermore, the associations were not significantly different for men and women. Past research into sexual functioning has found significant differences between men and women across a number of variables such as sex drive and response to sexual stimuli.²⁶ In contrast, research into relationship functioning often finds few reliable differences between men and women. 27,28 This may be explained by the underlying universal needs of humans to form enduring emotional attachments and the desire to enact relationship processes that sustain romantic relationships. 27,29,30 Moreover, when sex differences are found, they are often found in studies of individuals that sample men and women who are in different relationships rather than studies of dyads in which men and women are in the same relationship. 27,31 Dyadic studies often find more similarities rather than differences across actor and partner effects. 32,33 To this end, the lack of sex differences found in the current study

aligns with much by way of dyadic research into couple functioning. These results suggest that for both men and women, subjective sexual arousal is an important predictor of key sexual and relationship outcomes.

In line with theory regarding the sexual behavioral system, the more one felt sexually aroused by one's partner, the more sexually satisfied they were, and the greater they rated their relationship on aspects which denote relationship quality (eg, intimacy, passion, commitment, love). It may well be that feeling sexually aroused by one's partner encourages partnered sexual activity and facilitates physiological functioning which, in turn, promotes sexual pleasure and enjoyment.^{3,4,11} Sexual arousal by one's partner may also motivate behaviors and evaluations of one's partner which serve to maintain the existing relationship in order to maximize future opportunities for sexual activity. 10 These positive partner evaluations and relationship maintenance behaviors would be expected to contribute to improved relationship functioning and greater evaluations of relationship quality. In direct contrast, non-partner-induced sexual arousal was associated with poorer sexual satisfaction and relationship quality. This may be because feeling sexually aroused by others redirects one's attentions and motivations toward the arousing person and away from the current romantic partner. These possible explanations highlight the need for future research to investigate potential mechanisms such as frequency and quality of partnered sexual activity, attention to attractive others, and the enactment of relationship maintenance behaviors, that may explain the associations between sexual arousal and relationship outcomes found in this study.

The current proof-of-concept study provides novel findings which begin to address the absence of research investigating the associations between sexual arousal and outcomes in romantic relationships. The study was well powered, and the dyadic design enabled a more rigorous test of the hypotheses. However, there are study limitations that need to be acknowledged that also highlight important directions for future research in the area.

First, the current study was cross-sectional, and thus, causation cannot be inferred. Theory and experimental studies that specifically investigate sexually arousing material 15,34 support the direction of the relationships as tested in the current study. However, it may be that the nature of the associations between sexual arousal and these outcomes is one of covariation, or even that this relationship is bi-directional, in that sexual satisfaction and relationship quality may predict partner-induced and non-partner-induced sexual arousal. Future research would do well to replicate the current findings using cross-lagged panel modeling to enable an effective test of bi-directionality.

Second, the sample may not be representative of the general community given that the sample was primarily of Anglo-Saxon background, just over 50% of the sample reported that they were casually dating, and all couples were in a heterosexual relationship. Nevertheless, it is important to note that the sample included couples who had been in a relationship for an average of approximately three and a half years. Furthermore, relationship status did not significantly contribute to the prediction of men and women's sexual satisfaction and relationship quality above and beyond the effects of sexual arousal by partner and by others. Moreover, research into the study of romantic relationships typically finds few differences in associations between heterosexual and same-sex couples.³¹ However, given that this is a proof-of-concept study, future research is warranted to replicate the current findings with different samples that vary in sexual orientation, relationship status, and ethnic background. It would also be valuable to examine if the current findings apply to clinical samples comprised of people experiencing some form of sexual dysfunction. Whilst the current findings are not able to be generalized to clinical populations, it is important to note that the findings of the study are important for general community samples. Our research suggests that for nonclinical samples, non-partner-induced sexual arousal is deleterious to sexual and relationship satisfaction. This is an important finding in the general community and is the first research to report such findings in dyads. In addition, research within a nonclinical sample can also provide important data for cross-comparisons with clinical samples in the future.

Third, as this was a proof-of-concept study, the measures of partner-induced and non-partner-induced sexual arousal only consisted of two items, one item assessing frequency and the other item assessing intensity of sexual arousal. Whilst not ideal, the use of brief assessments is evidenced across numerous lines of sexual research, ^{23,35-38} and the measurement performance of single item measures of sexual satisfaction across various psychometric criteria has been found to be similar to multi-item

measures of the construct.²¹ Furthermore, the two item measures used in the current study demonstrated very good internal reliability and were both found to be significant predictors of sexual satisfaction and relationship quality. Regardless, future research would do well to improve on these methodological limitations of the current study by using robust, psychometrically sound measures of subjective sexual arousal.

Lastly, the current study did not specify between different types of stimuli which may have led to the non-partner-induced sexual arousal; it may have been induced by a sexually attractive friend at a party, a colleague at work, or a stranger on the street, or it may have been induced by using pornography. We believe that the wording of the items was most likely to be interpreted as "real present humans the person has encountered" as opposed to sexually arousing stimuli such as pornography. However, even if participants interpreted the items to include stimuli such as pornography, the conclusions of the study largely remain the same. This is because pornography would simply reflect another way that people could experience non-partner-induced sexual arousal. Nevertheless, future research could address this empirical question by distinguishing between different sexual arousing stimuli and comparing the effects. For instance, research could assess feeling sexually aroused by friends, colleagues, other sexual or romantic partners, and pornography, to examine whether the specific stimulus matters, or if it is enough to just distinguish between partner-induced sexual arousal and non-partner-induced sexual arousal as in the current study.

Regarding clinical implications, when working with clients, therapists and practitioners may need to place an emphasis on using strategies and techniques that specifically facilitate or heighten partner-induced sexual arousal. This might involve drawing clients' attention to the sexually arousing features of their partners to make these more salient, or identifying and encouraging behaviors and situations which often lead to feeling sexually aroused by one's partner. At the same time, it may be beneficial to help couples to move away from those behaviors and situations which typically lead to non—partner-induced sexual arousal. For instance, this might include limiting the use of pornography given it is known to trigger non—partner-induced sexual arousal. This research also provides a foundation for future research seeking to better understand how these findings might apply in clinical settings.

CONCLUSION

The title of this article posed a question: Does it matter who you feel sexually aroused by? The results of the current study suggest that the answer is yes. Feeling sexually aroused by one's partner was positively associated with sexual satisfaction and relationship quality, but non—partner-induced sexual arousal was negatively associated with these important outcomes. This not only has a raft of clinical implications, but it provides the basis for several important avenues of future research on the role of subjective sexual arousal in romantic relationships.

DATA AVAILABILITY STATEMENT

The SPSS dataset and AMOS output for the current study are available at the following link: https://osf.io/bcfg2/files/.

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STATEMENT OF AUTHORSHIP

Conceptualization, NJL, GCK and MPM; Methodology, NJL, GCK and ERM; Formal Analysis, NJL and GCK; Investigation, NJL and ERM; Data Curation, NJL; Writing - Original Draft, NJL, GCK, ERM, MPM; Writing - Review & Editing, NJL, GCK, MPM; Supervision, GCK, MPM.

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