Navigating Love in a Post-Pandemic World: Understanding Young Adults' Views on Short- and Long-Term Romantic Relationships

ArticleCategory : Original Paper

Copyright-Holder: Springer Science+Business Media, LLC, part of Springer Nature

Copyright-Year: 2023

Lim Mengzhen ¹,^{2*}, Daniel Han Jie Lim ³, Elizaveta Berezina ³, Jaime Benjamin ⁴

¹Graduate School of Arts and Letters, Meiji University, 1-1 Kanda Surugadai, Chiyoda<mark>Ku</mark>ku, Tokyo, 101-8301, Japan

²Undergraduate Studies, Temple University, Tokyo, Japan

³Department of Psychology, Sunway University, Petaling Jaya, Malaysia

⁴Department of Psychology, Lancaster University, Lancaster, UK

Rec: 8 March 2023, Rev: 25 October 2023, Accp: 26 October 2023,

Abstract

The uncertain future due to COVID-19 pandemic and the technological advancements may have altered young adults' experiences of romantic relationships. It is unclear whether individuals will continue to prefer traditional long-term romantic relationships (LTRR) or opt for short-term ones (STRR). This research describes how young adults in Malaysia perceive LTRR and STRR. Using the structured approach of the Theory of Social Representation, data were collected from N = 512; 238 (46.48%) male; M_{age} 21.75;

majority are heterosexual and students, and analyzed using prototypical analysis to reveal high consensus elements. Five observations were made: (1) females prioritize "Love" in both STRR and LTRR, while males prioritize "love" only in LTRR; (2) females prioritize "marriage" in LTRR, while men prioritize "trust," "comfort," and "stability." Males do not consider "marriage" as part of a LTRR; (3) both males and females view STRR positively, while LTRR are viewed more practically; (4) "sex" is a core element in STRR but is absent in LTRR; (e) males differentiate between STRR and LTRR with no overlapping elements. These findings provide insight into the social representations of romantic relationships among young adults in Malaysia and suggest future directions for research in the field.

Keywords: Long-term romantic relationship, Short-term romantic relationship, COVID-19, Love, Sex, Social representations

Introduction

Romantic relationships are beneficial in multiple ways to the lives of young adults. They protect against mental distress (Bourassa et al., **2019**; Ciria-Barreiro et al., **2021**), facilitate positive life development (Gómez-López et al., **2019b**), are an important source of mental well-being (Braithwaite & Holt-Lunstad, **2017**; Gómez-López et al., **2019a**; Sisson et al., **2022**), may help reduce externalizing behaviors (e.g., aggression; Kansky & Allen, **2018**), and have been linked to positive physical health outcomes, such as indicators of reduced inflammation (Jolink et al., **2023**). University students in romantic relationships tend to be serious about them and feel strongly in love (Nadzirah et al., **2018**). The nature and trajectories of romantic relationships among young adults have changed significantly in recent years, requiring further study, especially among underrepresented populations such as Asian subgroups (Tillman et al., **2019**). This could be because of the numerous challenges they face in them, regarding break-ups (Mengzhen & Yap, **2022b 2022**), finances (Olson & Rick, **2022**), infidelity (Fincham & May, **2017**), early pregnancies (Idris et al., **2022**), and sexual dissatisfaction (Pacher, **2022**). Due to (1) uncertainty resulting from COVID-19 (e.g., not able to meet up physically, economic impacts), (2) technological advancements (e.g., invention of dating

apps such as Tinder, sexting), and (3) cultural influences (e.g., globalisationglobalization, gender inequality, and changing norms in terms of attitudes towards toward premarital sex) the normative view of romantic relationships among young adults may have changed. As a result, it is unclear whether, in the future, people would favor traditional long-term romantic relationships (LTRR), short-term romantic relationships (STRR), or both. Therefore, to identify the mechanisms of these challenges and how best to intervene so that more young people may experience the benefits of romantic relationships, it is essential to first comprehend how they understand these two concepts. Hence, in this research, we intend to study the social representations of young adults concerning STRR and LTRR.

Coronavirus Disease 2019 (COVID-19) and Romantic Relationship

The unexpected COVID-19 pandemic, which began in late 2019, had a significant impact on romantic relationships. To curb the spread of the virus, governments implemented movement restrictions (Benton et al., **2021**), limiting physical contact and reducing the risk of transmission. As a result, many countries greatly restricted travel for non-essential reasons, sparking frustrations over the continued dismissal of traveling to meet significant others as unimportant (Chung, **2020**). These movement restrictions also caused those who were single to lose opportunities to meet partners (Goldstein & Flicker, **2020**; Hindes & Urry, **2022**). These changes may have led people to rethink their normative needs from romantic relationships.

Furthermore, those planning to be involved in romantic relationships had to consider COVID-19-related instabilities. The movement restrictions limited not just social activities but economic ones (Ozili & Arun, **2023**). As inflation and unemployment rates rose globally (Ozili & Arun, **2023**; Pak et al., **2020**), young adults were threatened with the loss of occupations and uncertainty over the future (Aziz et al., **2020**; Wong & Alias, **2021**). These may lead some to prioritize individual needs or goals (e.g., career- and health-related ones) over seeking out traditional forms of romantic relationships (Mahmud et al., **2020**; Watkins & Beckmeyer, **2020**). Tan et al. (**2021**) showed that the youth of today might prefer singlehood to romantic relationships because of the flexibility it affords in finances and decision-making. These priorities may result in a preference for the reduced commitment of short-term relationships over long-term ones. As the COVID-19 pandemic gradually comes to an end around the globe (Miller & Seitz, **2023**; World Bank, **2022**; Yuansheng et al., **2022**), it remains to be seen if changes in our ways of experiencing romantic relationships developed during the pandemic will persist through worldwide returns to normalcy.

Technological Advancement and Romantic Relationship

Technological advances impact young people's romantic relationships. Technology aids long-distance communication (Acosta-Rodas et al., <u>2021</u>) and broadens short-term prospects through online dating (Morrissey, <u>2020</u>; Zhou, <u>2023</u>). Pandemic restrictions boosted online dating in Asia (Low et al., <u>2022</u>). For example, Tinder dominates Malaysian mobile dating (Jacobs, <u>2021</u>). Technology also enables sexting, a form of modern sexual communication (Van Ouytsel et al., <u>2020</u>). Sexting allows sexual needs to be satisfied remotely, potentially shaping normative views on sex, especially for long-distance couples (Beckmeyer et al., <u>2022</u>; Kafaee & Kohut, <u>2021</u>). Technology's impact on romance also intertwines with culture. Malaysians showed low initial adoption of online dating apps (Adam et al., <u>2020</u>), but attention is growing (Balan et al., <u>2021</u>; Chan et al., <u>2023</u>; Shah Alam et al., <u>2018</u>) despite the expected resistance from Malaysian conservatism (Goh et al., <u>2022</u>). Therefore, understanding romantic relationships also requires an understanding of the local, cultural context.

Cultural Values and Romantic Relationship

Malaysia and other Asian countries are undergoing a cultural shift. Unlike the West's focus on romantic relationships (Akyol, <u>2020</u>), Asian marriages traditionally emphasized practical motives like finances (Lapanun, <u>2019</u>) or parental arrangements (Jones, <u>2017</u>). However, globalization, partly precipitated by COVID-19 (Fernandes et al., <u>2020</u>; Nilsson et al., <u>2022</u>; Trott et al., <u>2022</u>), reshapes traditional values (Kobayashi & Kawabata, <u>2019</u>; Ullah & Ho, <u>2021</u>), as much as they try to preserve cultural identity (Uçar & and Demir , <u>2022 2023</u>). In conservative cultures like Malaysia (Abdul Rahman, <u>2014</u>; Fan, <u>2021</u>), this can spark conflicts in romantic relationships. For example, Malaysian conservatism impacts marriage views (Manap et al., <u>2013</u>). While religion bolsters its cultural significance, modern-day marriages may result in significant financial burdens (Olson & Rick, <u>2022</u>) from the exorbitant costs of Malaysian weddings (Zulkarnain & Ramli, <u>2021</u>), potentially influencing some to remain unmarried. Furthermore, the divorce rate has recently almost doubled, partly owing to challenges of work–home balancing, lower tolerance for

unhappy marriages, and rising divorce acceptance (Jones, **2021**). Therefore, children growing up observing normalized divorces might view divorce and relationships differently as young adults, despite Malaysia's conservatism.

Sex is critical in young adult relationships (Blumenstock, 2022). Malaysia's strongly conservative culture (Abdul Rahman, 2014), influenced by religion (Razali et al., 2021a, 2021b), deems premarital sex taboo (Ismail & Hamid, 2016). However, newer research shows religiosity's reduced impact on preventing premarital activity (Muhammad et al., 2017), suggesting young adult sexual norms have changed. Media reports also document the arrests of unmarried couples at hotels (Daily Mail, 2010; Meor Ahmad, 2023; Mok, 2018; Zakaraya, 2020) and multiple studies reported lower ages of sexual debut (Ismail et al., 2021; Lian et al., 2020; Win et al., 2020) compared to past reports (Joseph, 2016; Ng, 2022), further implying changes in behaviors.

Another possible influence is the gender inequality which persists in Malaysia (Lee & Choong, 2019), impacting women's careers (Moorthy et al., 2022) and income (Cheong & Narayanan, 2022). This may drive some Malaysian women to seek marriage (Kohno et al., 2019, 2020) for social protection rather than seeing it as the result of a romantic relationship. Likewise, men may adhere to gender roles by seeking passive partners, assuming women need financial support (Akyol, 2020). It is currently unclear how young adults' perceptions of romantic relationships resulting from these societal structures may differ between males and females specifically.

The Concept of Short-Term and Long-Term Romantic Relationships

The concepts of STRR and LTRR have been explored in research (Besser et al., **2022 2023**; Harvey, **2019**; Mengzhen & Berezina, **2022a 2022**; Mutluoglu & Ashworth, **2021**), but rarely in Malaysia. There are two important observations concerning these two concepts: (1) gender differences and (2) everyday representations (which may differ from scientific concepts).

Firstly, past research has identified gender differences in approaches to relationships. Men might behave in ways which favor STRR over LTRR. Relative to women, men exhibit stronger sex drives (Frankenbach et al., **2022**), embrace casual sex (Archer, **2019**; Buss & Schmitt, **2019**), and take higher risks for it (Pipitone et al., **2021**). They show curiosity in diverse sexual experiences (Gray et al., **2019**; Thompson et al., 2020), including threesomes and one-night stands. In contrast, women lean towards-toward LTRR (Li & Choy, **2023**), favoring partners willing to commit (Wade et al., **2021**). Additionally, women often experience more negative emotions after casual sex (Buss & Schmitt, **2019**; McKeen et al., **2022**), including regret (Kennair et al., **2018**; Wesche et al., **2021**). This may be because women are likelier to have unsatisfactory sex due to stigma, violence risk (Conley & Klein, **2022**), and subpar sex (Piemonte et al., **2019**). Another factor is the sexual double standard, which values male sexual freedom but female sexual restraint (Endendijk et al., **2020**), and is stronger in countries with more gender inequality (Endendijk et al., **2020**) or rigid gender roles (Heise et al., **2019**). These dynamics may affect how Malaysian young adults perceive STRR and LTRR.

Secondly, while STRR and LTRR have been studied, definitions are often researcher-derived. Real-life perceptions can differ from academic definitions (Orosz, **2010**). For example, it is unclear whether serial monogamy (engaging in successive STRR) emphasizes sexual encounters or romance (Olmstead & Anders, **2021**). Social representations research in Brazil have explored perceptions of "couple relationship" based on informal or formal involvement in them but not general perceptions (Andrade & Wachelke, **2011**). Understanding how people perceive STRR and LTRR based on daily experiences is essential, as communication shapes social reality. In social psychology, this is referred to as social representations (Sammut et al., **2015**).

Social Representation

Social representation is defined as a product and process of a mental activity of an individual or a group whereby they reconstruct the reality which has a specific meaning for them (Orosz, **2010**). This is because different groups of people, when encountering the same phenomena, would interpret the phenomena differently. For example, when facing issues about "system security" in hospitals, the doctors perceived it as access to data while the nurses perceived it as protection of patient confidentiality (Vaast, **2007**). In the context of this study, social representations should be understood as a noun, as it refers to a product, or a representation, whose content can be studied (Chryssides et al., **2009**). Understanding social representations

is important areimportant as it (1) provides us with communicable knowledge, (2) helps to define our identity and identity of a specific group, (3) orients our behavior, and (4) justifies actions within a social group (Orosz, **2010**). For example, in social representations of road safety, one group perceived "speed" as "danger," while another group perceived it as "pleasure." These representations changed driving practices, as those who viewed speed as "dangerous" drove more "carefully" and received fewer speeding tickets compared to the "pleasure" group, who perceived driving as "hedonistic" and received more fines (Rateau et al. **, 2011 2023**). This shows that how we perceive a phenomenon can change our reality and actions.

The current study follows the structural approach to social representations (Moliner & Abric, **2015**). This theory argues that social representations elements could be arranged into a dual system, the central core and peripheral. The dual system's main purpose is to maintain stability in the group's representations by preserving consensus within the group and allowing for some individual differences. The central core represents the widely agreed-upon elements that assist individuals in managing the meanings associated with STRR and LTRR, reinforcing them into non-negotiable beliefs tied to the group's values, norms, and history, defining the social representation and explaining its existence. For example, in a study on social representations of corruption, the element "money" was illustrated as the central core because it was agreed upon by most people in the studied population, and it was the first element that came to mind when they were asked to think about corruption (Mengzhen et al., **2021**).

On the other hand, the peripheral consists of elements that are changeable applications of the Single-Target Implicit to help one adapt to the changing social realities. The differentiation between central and peripheral factors could help us understand what influences one's behavior more clearly. After identifying the core and peripheral messages about organ donation, an experiment was designed by creating two petitions using central core and peripheral messages respectively (Rateau et al., 2011 2023). 51% of people who were persuaded by the central core message signed the petition, compared to only 34% of people who saw the peripheral message. Considering the focus of this study, understanding social representation would mean comprehending what influences one's actions in romantic relationships.

Hence, this study aimed to bridge the research gap by exploring the social representations of STRR and LTRR. To be specific, we aimed to address the following research questions:

RQ1: What are the social representations of STRR for males and females?

RQ2: What are the social representations of LTRR for males and females?

RQ3: How would males differentiate the social representations of STRR and LTRR compared to females?

Method

Study Design

This is a cross-sectional study that used an online survey method to gather social representation elements about STRR and LTRR from respondents. It is also referred to as free association technique (Verges, **1992**). The elements were then categorized into core and peripheral categories through prototypical analysis and interpretation based on the structural approach of the Theory of Social Representations. Prototypical analysis was carried out using IRAMUTEQ software. We replicated the design used in study such as Dvoryanchikov et al. (**2014**) and Mengzhen et al. (**2021**). The entire survey was conducted in English, as it is a commonly used language in daily life conversations, especially among the studied populations.

Respondents

512 respondents completed the survey, with 238 (46.48%) identifying as male and 274 (53.52%) identifying as female. The demographic data is are based on self-reported information: for the gender, respondents chose "female," "male," or "others." The age range was 18–33 (M = 21.75; SD = 3.03). The majority of respondents identified as heterosexual (80.3%), were students and not working (54.3%), single (57.8%),

and college or university graduates (77.1%). Out of the total respondents, 285 individuals (55.7%) reported having experience in STRR, while 261 individuals (51.6%) reported having experience in LTRR. All respondents also self-reported their nationality as Malaysian. For more information, see Table **1**.

Characteristic	Male ^a		Female ^b		Total		
	n	%	n	%	n	%	
Sexual orientation							
Heterosexual Heterosexual: attracted to people of the opposite sex	202	84.87	209	76.28	411	80.3	
Bisexual Bisexual: attracted to people of both sex	9	3.78	26	9.49	35	6.8	
Homosexual Homosexual: attracted to people of one's own sex	11	4.62	5	1.82	16	3.1	
Pansexual Pansexual: attracted to people of either sex	2	0.84	12	4.38	14	2.7	
Decline to answer	9	3.78	5	1.82	14	2.7	
<mark>Unknown</mark> Unknown	5	2.10	17	6.20	22	4.3	
Current	status						
Student, not working	136	57.14	142	51.82	278	54.3	
Student, part-time work	49	20.59	51	18.61	100	19.5	
<mark>Student</mark> Student, full-time work	16	6.72	20	7.30	36	7.0	
Full Full-time employed	22	9.24	40	14.60	62	12.1	
Others Others	15	6.30	21	7.66	36	7.0	
Relationship status							
Single	Single	159	66.81	137	50.00	296	57.8
In a relationship	71	29.83	109	39.78	180	35.2	
Others Others	8	3.36	28	10.22	36	7.0	
Education							+ + + + + +
College or university graduate	183	76.89	212	77.37	395	77.1	
High High school graduate	50	21.01	41	14.96	91	17.8	
Master Master level degree	3	1.26	19	6.93	22	4.3	
Others	2	0.84	2	0.73	4	0.8	

Table 1 Demographics StatusStudent

^an = 238

^bn=274

Measure

To gather the social representation elements of STRR, we asked the respondents "Think about short-term romantic relationships. What words or phrases come to your mind? Please, write five words or phrases." The words and phrases written are the elements of social representation. The same technique was used to gather the social representation elements for LTRR.

Procedure

After obtaining approval from the university's ethics committee, we advertised the research on various platforms such as social media (e.g., Facebook, Twitter, Linkedin, Instagram) or put up posters on various universities' public notice boards (e.g., Sunway University). Interested individuals could scan a QR code on the advertisement which would lead them to the survey page, hosted by Qualtrics. All information such as objectives, risks were written on the first page of the survey and respondents who wanted to proceed to participate in the study could check the "I agree" button to imply consent. Data collected went through two steps of analysis: (1) content coding and (2) prototypical analysis. The software IRaMuTeQ was used to carry out the prototypical analysis.

Content Coding

The main purpose of content coding is to group all the words or phrases that have similar semantic meaning into one same element. For example, the word "lust" was re-coded into the element "sex"; "excite" and "excited" was re-coded into exciting; "wedding" and "let's get married" were re-coded into marriage; phrase such as "i won't cheat on her" was re-coded into loyalty. The initial coding was done by the primary investigator and rechecked by the research team. To ensure the validity of the re-coding, 10 independent individuals were invited to indicate their agreement if the original word or phrase and recorded word or phrases have the same semantic meaning. The average pairwise percentage achieved was 85.30%. We deemed this a good result and proceeded with the prototypical analysis.

Prototypical Analysis

Prototypical analysis organizes the elements based on the frequency measured by significantly higher word or expression usage, as well as their level of importance, as indicated by the evocation that comes to mind first (Verges, <u>1992</u>). It is a widely used method for characterizing the structure of a social representation based on data collected through free association (Ariccio et al., <u>2022</u>; Ferrara & Friant, <u>2016</u>; Giacomozzi et al., <u>2022</u> <u>2023</u>; Morais et al., <u>2022</u>; Vieira et al., <u>2022</u>; Wachelke & Wolter, <u>2011</u>). Prototypical analysis was carried out using the software IRaMuTeQ. The software categorizes significant elements into: (1) the central core zone, which consists of elements with high frequency and high importance levels, and three peripheral zones; (2) the first peripheral zone (high frequency but lower importance levels); (3) contrasted elements zone (lower frequency but high importance level); and (4) second peripheral zone (low frequency and low importance level).

In total, there were 2560 elements illustrated by the participants for each term and these were classified into 307 unique elements for "LTRR" and 430 elements for "STRR." In line with common practice, elements that were mentioned by less than 5% of the respondents were excluded from further analysis (Dvoryanchikov et al., **2014**). We illustrated all the elements evoked and answered all the research questions.

To answer RQ1, both males and females agreed that "fun," "sex," "exciting," and "puppy love" are the core elements of STRR. The gender differences found were that males used the additional terms "short" and "fast," while females used "love" (see Table <u>2</u>). This data highlights that females perceive "love" as an important element, even in STRR.

Dual system	Male	Female
Central core zone (elements of high frequency and high importance)	Fun (65, 2.5)Sex (54, 2.6)Exciting (40, 2.6)Puppy love (27, 2.3)Short (68, 2.5)Fast (29, 2.4)	Fun (64, 2.2)Sex (35, 2.5)Exciting (35, 2.5)Puppy love (35, 2.0)Love (39, 2.4)
First peripheral zone (elements of high frequency and low importance)	Love (31, 2.8)	Short (68, 2.7)Not serious (34, 3.1)No commitment (34, 3.0)Happy (33, 2.8)
Contrasted elements zone (elements of low frequency and high importance)	Fling (24, 2.5)Passion (20, 2.1)Learning (17, 2.1)Sweet (13, 2.0)Pointless (13, 2.6)	Fling (26, 2.0)Passion (23, 2.4)Fast (22, 2.5)Romantic (18, 2.4)Friends with benefits (15, 2.5)
Second peripheral zone (elements of low frequency and low importance)No commitment (24, 3.1)Happy (22, 3.5)Casual (19, 2.8)Date (19, 3.1)Not serious (15, 3.3)Testing (13, 3.2)Boring (13, 3.6)Flights (13, 3.2)Heartbreak (13, 3.9)Spontaneous (12, 3.1)		Immature (20, 3.8)Casual (20, 3.1)Incompatible (20, 4.1)Learning (17, 3.1)Sweet (15, 2.9)Uncertainty (14, 3.1)

Table 2 Elements for short-term romantic relationship (STRR)

The frequency and level of importance are indicated in the brackets. For example, for males, "Fun (65, 2.5)," 65 indicates the frequency (the number of mentions by respondents), and 2.5 indicates the level of importance (on a scale of 1–5, with a lower number indicating greater importance)

To answer RQ2, for LTRR, both males and females agreed that "love," "commitment," and "loyalty" are the core elements. The gender differences found were that males used the additional terms "trust," "comfortable," and "stable," while females used "marriage" (See Table <u>3</u>). What is interesting in this data is

that marriage is not the concern for males when describing LTRR.

Dual system	Male	Female
Central core zone (elements of high frequency and high importance)	Love (119, 2.6)Commitment (86, 2.1)Loyalty (29, 2.2)Trust (66, 2.5)Stable (29, 2.0)	Love (131, 2.7)Commitment (103, 2.1Loyalty (46, 2.6)Marriage (50, 2.8)
First peripheral zone (elements of high frequency and low importance)	Partner (34, 3.6)	Trust (88, 2.9)Understanding (46, 3.5)
Contrasted elements zone (elements of low frequency and high importance)	Happy (21, 2.8)Dedication (17, 2.2)Secure (17, 2.6)Forever (15, 2.8)	StableResponsibilityFutureSecurePatienceLong termSerious
Second peripheral zone (elements of low frequency and low importance)	Understanding (28, 3.5)Marriage (28, 3.0)Communication (27, 3.4)Difficult (20, 3.1)Intimacy (19, 3.4)Care (18, 3.0)Future (15, 3.4)Tolerance (15, 3.8Family (15, 3.9)Respect (15, 3.7)Sex (14, 3.3)Compromise (14, 3.6)Patience (13, 3.0)Supportive (12, 3.9)Flights (12, 3.2)	Happy (35, 3.5)Comfortable (27, 3.4)Honest (25, 2.9)Partner (24, 3.1)Communication (23, 3.1)Care (22, 3.2)Family (22, 3.4)Respect (22, 3.4)Growth (20, 3.9)Tolerance (15, 3.3)

Table 3 Elements for long-term romantic relationship (LTRR)

The frequency and level of importance are indicated in the brackets. For example, for males, "Love (119, 2.6)," 119 indicates the frequency (the number of mentions by respondents), and 2.6 indicates the level of importance (on a scale of 1–5, with a lower number indicating greater importance)

We conducted an intersectional analysis to answer RQ3. For males, there are no overlapping terms in social representation elements for both STRR and LTRR. However, for females, "love" is the core representation regardless of whether it's a LTRR or STRR, while for males, "love" only exists in LTRR.

In summary, we wish to shed light on five interesting observations based on the data collected. Firstly, both females and males have different perceptions of the core elements of relationships. For females, "love" is the central core element regardless of whether it's a LTRR or STRR. On the other hand, for males, "love" only exists in LTRR. Secondly, in LTRR, females emphasize "marriage" as an important aspect, while males focus on "trust," "comfort," and "stability." Thirdly, in STRR, both males and females view it as a positive concept, as evidenced by the use of positive emotions such as "fun" and "exciting." While the term "puppy love" (romantic love that a young person feels for someone else, which usually disappears as the young person becomes older; Cambridge Dictionary, 2023) may have a negative connotation, overall, both genders have a positive view of STRR. In contrast, LTRR are viewed more practically, as demonstrated by the use of terms such as "commitment" and "loyalty" by both males and females. Fourthly, "sex" is a central core element of STRR for both genders, but it is completely absent from LTRR. Finally, it is clear that males distinguish between STRR and LTRR, while the core representation of "love" remains constant for females, regardless of the type of relationship.

Discussion

The uncertain future shaped by technological advancements and the COVID-19 pandemic might have altered young adults' romantic experiences. It remains unclear if traditional long-term romantic relationships (LTRR), short-term ones (STRR), or a mix will prevail. This exploratory research described Malaysian young adult

social representations of romantic relationships, crucial for knowledge sharing, identity definition, and behavior guidance (Orosz, **2010**). Data underwent structural analysis via the structural approach to social representations theory, spotlighting central core elements that cement relationship meanings as unwavering beliefs tied to group values, norms, and history. We made five observations from the data collected.

Firstly, females and males perceive relationship core elements differently. For females, "love" remains central in both LTRR and STRR; for males, "love" is only central to LTRR and a first peripheral element of STRR. Although sex and emotion are not always connected (Birnbaum & Reis, 2019), this reflects females' willingness to invest emotions in love, even in STRR. Women tend to prioritize serious relationships while dating (Almond et al., 2019; Foster, 2021; Gray et al., 2019), are less likely to agree that"sex without love is acceptable" (Buss, 2018), and cite love and commitment as motives for sex more than men (Meston et al., 2020). This research and past findings on sex being viewed as an expression of love (Fazli Khalaf et al., 2018) suggest Malaysian young women are similar. Peripheral elements can adapt to situations, thus the absence of "love" as a Malaysian men's core representation suggests emotional detachment from sex, possibly implying Malaysian women favor serial monogamy and Malaysian men flings. Future research could delve deeper into this aspect.

Gender differences have also emerged in love style preferences. In Malaysia, women displayed elevated scores in altruistic love, indicating willingness to prioritize partner happiness (Wan Shahrazad et al., **2012**). It currently remains unclear which love type both genders apply to STRR and LTRR; future research could investigate if women invest altruistic love in short-term relationships too.

Secondly, in LTRR, females prioritize "marriage," while males emphasize "trust," "comfort," and "stability." Despite cultural and religious diversity, Malaysians agree Marriage is vital. Romantic love often leads to marriage and children in today's society (Giddens & Sutton, 2021; Lamanna et al., 2014). Although social systems, such as family laws, often function based on relationship trajectories in society (Harun, 2022), the typical progression from marriage to cohabitation to childbearing has shifted in the West (Berrington et al., 2015; Holland, 2013, 2017). Our findings indicate a possible similar shift in Malaysia. This prompts concerns over marriage's sustainability, as core elements are tied to group values (non-negotiable beliefs), suggesting marriage is a negotiable belief for men.

Intriguingly, "marriage" falls under the least important second peripheral zone. One could attribute this to males simply marrying later, but the true difference is only 1–2 years (Department of Statistics Malaysia **7 2020 2022**). Therefore, we speculate gender role expectations might contribute. Although women have been participating more in household spending recently (Lee & Choong, **2019**), Malaysia's patriarchal society places familial financial responsibility on men (Boo, **2021**; Moorthy et al., **2022**). Men are still expected to be breadwinners and cover most expenses (Jones & Gu, **2023**; Zulkarnain & Ramli, **2021**), possibly generating stress. Conversely, women might uphold marriage for practical reasons, such as social security amidst gender inequality. For example, women cannot pass citizenship to children as men can (Ding, **2022**), and gender gaps persist in multiple sectors (Chipfunde et al., **2021**; Moorthy et al., **2022**; Suleman et al., **2021**). In such an environment, females might, unsurprisingly, seek marriage as social security.

Males favored "trust," "comfort," and "stability" over marriage, contradicting Boxer et al. (2015), who discovered more men than women considered trust important in relationships. Studies have shown that lack of trust could result in negative relationship outcomes (Kamal et al., 2022). Since this is the first study to reveal such associations with LTRR among males, future research could explore how and why they developed.

Thirdly, both genders seem to have positive perceptions of STRR, using terms like "fun" and "exciting," although "puppy love" may have negative connotations. In contrast, LTRR are viewed more practically, with both genders using terms such as "commitment" and "loyalty." These results may be explained using the concept of hedonic adaptation (Klausen et al., **2022**; Lyubomirsky, **2011**). Romantic relationships are typically most delightful at their beginnings, marked by passion, attraction, and thrill. Hedonic adaptation, deemed a primary hurdle in maintaining relationship satisfaction (Bao & Lyubomirsky, **2013**), is the dissipation of these positive emotions over time (Breines, **2014**). As STRR fits hedonic adaptation's brief timeframe, individuals may only experience its positive effects, evoking positive core elements. Additionally, the majority of the respondents are currently in their young adulthood phase, which may lead them to seek opportunities for exploration in romantic relationships. Those who perceived emerging adulthood as a period for exploration and new possibilities were more likely to engage in consensually non-monogamous (CNM)

relationships (Olmstead & Anders, 2022). CNM refers to romantic or sexual partnerships in which all parties involved agree to have multiple partners with the knowledge and consent of everyone involved. Such relationships can take various forms, including STRR. Future research should also consider whether STRR is related to other similar concepts, such as serial monogamy, hookups, and open relationships when examining its social representations and functions.

For long-term relationships, it is reasonable for respondents to link practical words. This showed traditional LTRR beliefs are still upheld by study participants, akin to other relationship research (Chuah et al., <u>2022</u>; Dougall et al., <u>2022</u>; Peel & Caltabiano, <u>2021</u>; Riffenburgh-Kirby, <u>2021</u>).

Fourthly, "sex" is a central core element of STRR for both genders, but completely absent from LTRR. This result is consistent with Schwarz et al.'s (2020) finding that sex is an important component of STRR while contradicting social representation research from Brazil where sex is not part of the central core elements (Andrade & Wachelke, 2011). While previous studies have shown that males tend to view sex as key to romantic relationships (Almond et al., 2019; Thompson & O'Sullivan, 2012), that females do too is surprising. This is significant because sex is traditionally considered a taboo topic and females often viewed as more conservative in their attitudes towards toward it (Rahman et al., 2015; Thompson & O'Sullivan, 2012). This finding suggests liberalization of general attitudes towards toward sex, regardless of personal conservatism. Results stress sex education's importance among Malaysian youth to prevent unwanted outcomes like pregnancy should female participation in STRR increase.

Although there are other priorities in LTRR besides sex, it not being part of the core social representations is worrying. A recent study sheds light on the growing phenomenon of sexless marriages in Asia (Pacher, **2022**, p. 123–141), discovering a rising trend of married couples in Japan who are not sexually active. In Malaysia, issues related to sex, such as poor sexual performance and infidelity, have also been cited as major reasons for divorce (Malaysiakini, **2018**). Future research is much needed to understand sexual behavior in LTRR among young adults.

Finally, our findings show that males use different terms for STRR and LTRR, indicating a clear distinction between the two, but females see "love" as a core representation of both. We believe these core representations of relationships could influence behavior and decision-making in romantic relationships. This research could help young adults looking for romantic relationships, as it provides insight into what their peers look for in such relationships.

Limitations

This research has potential limitations. The study design is exploratory, necessitating further research to comprehend how "love" is manifested in reality. The explanations provided for each revelation remain speculative until further investigated. The justifications for this study (COVID-19, technology, culture) were inspired by observations. No relationships between these factors and romantic relationships were measured, which subsequent studies could delve into.

Demographic data such as religion and ethnicity were also not collected, resulting in a sample that may not fully represent Malaysia's diversity. More research is needed to explore if all Malaysian young adults perceive relationships similarly and identify reasons for potential differences (e.g., sociosexuality). Additionally, English is not the national language of Malaysia, although widely used. Since the study was conducted in English, had the study been conducted in another language, participants might have offered different, more nuanced viewpoints.

Lastly, using only five words to express STRR and LTRR beliefs might not entirely capture intricacies. Future research should consider other methods like in-depth interviews to achieve deeper understanding.

Conclusion

In conclusion, this research provides insight into how young adults in Malaysia perceive short-term (STRR) and long-term (LTRR) romantic relationships as reflected through their non-negotiable beliefs linked to their values, norms, and history. We made five important observations: (1) For females, "love" is the central core element in both short and long term romantic relationships, while for males, "love" is only present in LTRR; (2) females in LTRR prioritize "marriage," while males focus on "trust," "comfort," and "stability." Males do not consider "marriage" as part of a LTRR; (3) both male and female view STRR positively, with "fun" and

"excitement" as common emotions. LTRR, on the other hand, are viewed with more practicality and characterized by "commitment" and "loyalty"; (4) "sex" is a central core element in STRR for both genders but is absent in LTRR; and (5) the findings also showed that males completely differentiate both types of romantic relationship with no overlapping elements. These findings provide preliminary information on how Malaysian young adults perceive romantic relationships, contributing data from an understudied population. It can benefit young adults, who may better understand peer perceptions of relationships and adjust their expectations accordingly; researchers, by serving as a starting point for future research; and stakeholders in relationship interventions, sex education programs or therapists of emerging adults, by putting into context the relationship issues they may face. Our study also informs policymakers, who can understand the changing nature of relationships among Malaysian young adults, and, therefore, how family laws might adapt to follow suit.

10508_2023_2738_OnlinePDF.pdf

ArticleNote

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Acknowledgements

We would like to express special appreciation to Professor Maki Hirayama for her support throughout this research. The research team would also like to thank all the research assistants for their assistance in completing the research. Author ContributionsLM - contributed to project administration, writing (original draft, methodology), data curation, software, validation, formal analysis, and investigation. DHJL - contributed to writing (introduction), review and editing. EB - contributed to conceptualization, review and editing. JB - contributed to Investigation, review and editing. FundingThis research was self-funded by the principal investigator. All the authors have no relevant financial or non-financial interests to disclose.

Declarations

Conflict of interest

The authors declare that they have no conflict of interest.

Ethical Approval

This research received approval from the University's Ethics Committee.

References

Abdul Rahman, Z. (2014, April 18). *Malaysia among world's most morally conservative countries, poll finds.* Malay Mail. <u>https://www.malaymail.com/news/malaysia/2014/04/18/malaysia-among-worlds-most-morally-conservative-countries-poll-finds/654665</u>

Acosta-Rodas, P., Arias-Flores, H., & Ramos-Galarza, C. (2021). Long-distance relationships: Use of technology advances in communication, idealization and satisfaction. In W. Karwowski, T. Ahram, D. Etinger, N. Tanković, & R. Taiar (Eds.), *Human systems engineering and design III: Proceedings of the 3rd International Conference on Human Systems Engineering and Design international conference on human systems engineering and Design international conference on human systems engineering and design (IHSED2020)* (pp. 110–115). Springer. https://doi.org/10.1007/978-3-030-58282-1_18

Adam, N. Q. D., Rashidan, R. M., Rahim, M. A. L. C., Azman, A. A., Shukor, F. I. M., & Fadzil, A. F. M. (2020). The use of dating apps in Malaysia. *e-Journal of Media and Society (e-JOMS), 3*(2), 1–9.

Akyol, F. A. (2020). Gender differences in love. In H. Babacan & B. C. Tanrıtanır (Eds.), *Current researches in humanities and social sciences* (pp. 52–66). IVPE.

Almond, L., Harcourt-Medina, K. T., & Taylor, A. (2019). Online dating: Is hooking up the goal? *Psychology Research and Applications*, *1*(4), 81–88.

Andrade, A., & Wachelke, J. (2011). The association of structural configurations of romantic relationships with beliefs about couple relationships: A social representations study. *Anales De Psicología*, 27(3), 834–842.

Archer, J. (2019). The reality and evolutionary significance of human psychological sex differences. *Biological Reviews*, *94*(4), 1381–1415. <u>https://doi.org/10.1111/brv.12507</u>

Ariccio, S., Ganucci Cancellieri, U., Bonaiuto, F., Fasanelli, R., Galli, I., Pierelli, L., & Bonaiuto, M. (2022). Problematic donation procedures vs. futuristic research and treatment applications: A dichotomous social representation of stem cells in Italy. *European Reviewof Applied Psychology*, *72*(3), Article 100763. https://doi.org/10.1016/j.erap.2022.100763

Aziz, N. A., Othman, J., Lugova, H., & Suleiman, A. (2020). Malaysia's approach in handling COVID-19 onslaught: Report on the Movement Control Order (MCO) and targeted screening to reduce community infection rate and impact on public health and economy. *Journal of Infection and Public Health*, *13*(12), 1823–1829. https://doi.org/10.1016/j.jiph.2020.08.007

Balan, K., Rahim, F. A., Zulfakar, Z. A., Goh, P. J., & Chelliah, M. K. (2021). Swipe at first sight: The continuous intention to use dating apps in Malaysia. *Conference on Management, Business, Innovation, Education and Social Sciences, 1*(1), 24–34.

Beckmeyer, J. J., Herbenick, D., & Eastman-Mueller, H. (2022). Sexting with romantic partners during college: Who does it, who doesn't and who wants to. *Sexuality & Culture, 26*(1), 48–66. <u>https://doi.org/10.1007/s12119-021-09878-x</u>

Benton, M., Batalova, J., Davidoff-Gore, S., & Schmidt, T. (2021). COVID-19 and the state of global mobility in 2020. International Organization for Migration; Migration Policy Institute. https://migrationnetwork.un.org/sites/g/files/tmzbdl416/files/docs/covid-19-and-the-state-of-global.pdf

Berrington, A., Perelli-Harris, B., & Trevena, P. (2015). Commitment and the changing sequence of cohabitation, childbearing, and marriage: Insights from qualitative research in the UK. *Demographic Research,* 33, 327–362. <u>https://doi.org/10.4054/DemRes.2015.33.12</u>

Besser, A., Zeigler-Hill, V., Lotem, S., & Besser, Y. (2023). When a man sounds like a woman: The consequences of puberphonia for perceived romantic desirability and attractiveness for relationships. *Current Psychology*, *42*(20), 16739–16750. <u>https://doi.org/10.1007/s12144-022-02837-1</u>

Birnbaum, G. E., & Reis, H. T. (2019). Evolved to be connected: The dynamics of attachment and sex over the course of romantic relationships. *Current Opinion in Psychology, 25*, 11–15. https://doi.org/10.1016/j.copsyc.2018.02.005

Blumenstock, S. M. (2022). Expectations and sexual desire in romantic relationships: An experimental investigation of pleasure and emotional closeness expectancies among young adults. *The Journal of Sex Research*, *59*(3), 283–302. <u>https://doi.org/10.1080/00224499.2021.1991260</u>

Boo, H. S. (2021). Gender norms and gender inequality in unpaid domestic work among Malay couples in Malaysia. *Pertanika Journal of Social Sciences and Humanities, 29*(4), 2353–2369. https://doi.org/10.47836/pjssh.29.4.14

Bourassa, K. J., Ruiz, J. M., & Sbarra, D. A. (2019). The impact of physical proximity and attachment working models on cardiovascular reactivity: Comparing mental activation and romantic partner presence. *Psychophysiology*, *56*(5), Article e13324. https://doi.org/10.1111/psyp.13324

Boxer, C. F., Noonan, M. C., & Whelan, C. B. (2015). Measuring mate preferences: A replication and extension. *Journal of Family Issues*, *36*(2), 163–187. <u>https://doi.org/10.1177/0192513X13490404</u>

Braithwaite, S., & Holt-Lunstad, J. (2017). Romantic relationships and mental health. *Relationships and Stress,* 13, 120–125. <u>https://doi.org/10.1016/j.copsyc.2016.04.001</u>

Breines, J. (2014, September 30). 5 tips for recharging your relationship. Psychology Today. https://www.psychologytoday.com/us/blog/in-love-and-war/201409/5-tips-recharging-your-relationship.

Buss, D. M., & Schmitt, D. P. (2019). Mate Preferences and Their Behavioral Manifestations. *Annual Reviewof Psychology*, 70, 77–110. <u>https://doi.org/10.1146/annurev-psych-010418-103408</u>

Chan, X. Y., Choy, J. N., Chua, Z. L., Ng, S. J., & Ong, S. K. (2023). Online dating apps adoption: A perspective from young adults in Malaysia. In F. Chen, K. S. W. Choo, V. H. Lee, & C. Y. Wei (Eds.), *Proceedings of the 10th International Conference international conference on Business business, Accounting,*

Finance finance and Economics economics (BAFE 2022) (pp. 77–105). Atlantis Press. https://doi.org/10.2991/978-2-494069-99-2_8

Cheong, J. Q., & Narayanan, S. (2022). Income inequality between men and women in Malaysia. In B. Alareeni & A. Hamdan (Eds.), *Financial technology (FinTech), entrepreneurship, and business development: Proceedings of The International Conference on Business and Technology (ICBT 2021)* (pp. 597–608). Springer. <u>https://doi.org/10.1007/978-3-031-08087-6_43</u>

Chipfunde, D., Yahaya, S. N., & Othman, N. A. (2021). The determinants influencing the performance of women entrepreneurs in Malaysia: A conceptual framework. *Estudios de Economia Aplicada*, <u>39(4)</u>, <u>Article 4</u>. <u>https://doi.org/10.25115/eea.v39i4.4577</u>

Chryssides, A., Dashtipour, P., Keshet, S., Righi, C., Sammut, G., & Sartawi, M. (2009). Commentary: We don't share! The social representation approach, enactivism and the fundamental incompatibilities between the two. *Culture & Psychology*, *15*(1), 83–95. <u>https://doi.org/10.1177/1354067X08096514</u>

Chuah, Z. L., Lee, M. K., & Tan, S. Y. (2022). *Narcissism, gratitude, and general vell-being on relationship satisfaction among married couples in Malaysia* [Final year project, Universiti Tunku Abdul Rahman]. UTAR Institutional Repository.

Chung, E. (2020, August 14). Apart for months due to Covid-19 travel bans, love isn't "essential" for some countries. The Rakyat Post. <u>https://www.therakyatpost.com/living/2020/08/14/bi-national-unmarried-couples-separated-covid-19-travel-ban/</u>

Ciria-Barreiro, E., Moreno-Maldonado, C., Rivera, F., & Moreno, C. (2021). Effects of partner support on life satisfaction cisgender and transgender adolescents. *European Journal of Public Health, 31*(Supplement 3), iii333. <u>https://doi.org/10.1093/eurpub/ckab164.880</u>

Conley, T. D., & Klein, V. (2022). Women get worse sex: A confound in the explanation of gender differences in sexuality. *Perspectives on Psychological Science*, *17*(4), 960–978. <u>https://doi.org/10.1177/17456916211041598</u>

Daily Mail. (2010, January 5). Malaysian police arrest 52 unmarried Muslim couples for being alone together in hotel rooms. <u>https://www.dailymail.co.uk/news/article-1240510</u>

Department of Statistics Malaysia. (2022). *Marriage and divorce statistics, Malaysia, 2022*. <u>https://www.dosm.gov.my/site/downloadrelease?id=marriage-and-divorce-statistics-malaysia-2022</u>

Ding, E. (2022, August 3). *Malaysian mothers fight country's unequal citizenship laws*. Al Jazeera. https://www.aljazeera.com/news/2022/8/3/malaysian-mothers-fight-countrys-unequal-citizenship-laws

Dougall, M., Konantambigi, R. M., & Khanna, R. (2022). Nature of romantic relationship in committed emerging adults: Exploring challenges and resilience. *Psychological Studies*, 67(4), 537–548. <u>https://doi.org/10.1007/s12646-022-00692-5</u>

Dvoryanchikov, N., Bovina, I., Vikhristuck, O., Berezina, E., Bannikov, G., & Konopleva, I. (2014). Self-murder and self-murderers in social representations of young Russians: An exploratory study. *Psychologija*, *50*, 33–48. <u>https://doi.org/10.15388/Psichol.2014.50.4889</u>

Endendijk, J. J., van Baar, A. L., & Deković, M. (2020). He is a stud, she is a slut! A meta-analysis on the continued existence of sexual double standards. *Personality and Social Psychology Review, 24*(2), 163–190. https://doi.org/10.1177/1088868319891310

Fan, S. (2021). Intersectional social resistance towards women in Malaysia: A case study of social resistance against "dehijabing." In Kahl, C . Kahl & Fatima, N . Fatima (Eds.), Proceedings of the 2021 International Conference on Public Relations and Social Sciences international conference on public relations and social sciences (ICPRSS 2021) (pp. 1181–1188). Atlantis Press. https://doi.org/10.2991/assehr.k.211020.326

Fazli Khalaf, Z., Liow, J. W., Low, W. Y., Ghorbani, B., & Merghati-Khoei, E. (2018). Young women's experience of sexuality: A battle of pleasure and sexual purity in the context of Malaysian society. *Sexuality & Culture, 22*(3), 849–864. <u>https://doi.org/10.1007/s12119-018-9496-4</u>

Fernandes, B., Nanda Biswas, U., Tan Mansukhani, R., Vallejo Casarín, A., & Essau, C. A. (2020). The impact of COVID-19 lockdown on internet use and escapism in adolescents. *Revista De Psicología Clínica Con Niños y Adolescentes*, *7*(3), 59–65.

Ferrara, M., & Friant, N. (2016). The application of a multi-methodology approach to a corpus of social

representations. Quality & Quantity, 50(3), 1253–1271. https://doi.org/10.1007/s11135-015-0203-3

Fincham, F. D., & May, R. W. (2017). Infidelity in romantic relationships. *Current Opinion in Psychology, 13*, 70–74. <u>https://doi.org/10.1016/j.copsyc.2016.03.008</u>

Foster, D. (2021, April 23). *Gender differences in dating intentions using dating apps [Student presentation].* 2021 Undergraduate Research Showcase, Boise, ID, United States. <u>https://scholarworks.boisestate.edu/under_showcase_2021/49</u>

Frankenbach, J., Weber, M., Loschelder, D. D., Kilger, H., & Friese, M. (2022). Sex drive: Theoretical conceptualization and meta-analytic review of gender differences. *Psychological Bulletin, 148*(9–10), 621–661. <u>https://doi.org/10.1037/bul0000366</u>

Free Malaysia Today. (2022, December 4). Criminalising out-of-wedlock pregnancies, births cruel, says health group. <u>https://www.freemalaysiatoday.com/category/nation/2022/12/04/criminalising-out-of-wedlock-pregnancies-births-cruel-says-health-group/</u>

Giacomozzi, A. I., Rozendo, A., da Silva Bousfield, A. B., Leandro, M., Fiorott, J. G., & da Silveira, A. (2023). COVID-19 and elderly females—A study of social representations in Brazil. *Trends in Psychology*, *31*(2), 429–445. <u>https://doi.org/10.1007/s43076-021-00089-9</u>

Giddens, A., & Sutton, P. W. (2021). Sociology (9th ed.). Polity.

Goh, Y. S., Tan, S. A., & Gan, S. W. (2023). Sexting motives and sexting behavior among emerging adults in Malaysia during the COVID-19 pandemic lockdown. *Gender, Technology and Development,* 27(1), 136–156. https://doi.org/10.1080/09718524.2022.2133360

Goldstein, A., & Flicker, S. (2020). "Some things just won't go back": Teen girls' online dating relationships during COVID-19. *Girlhood Studies*, *13*(3), 64–78. <u>https://doi.org/10.3167/ghs.2020.130306</u>

Gómez-López, M., Viejo, C., & Ortega-Ruiz, R. (2019a, July 72019). Well-being and romantic relationships: A systematic review in adolescence and emerging adulthood. *International Journal of Environmental Research and Public Health*, *16*(13), Article-2415. https://doi.org/10.3390/ijerph16132415

Gómez-López, M., Viejo, C., & Ortega-Ruiz, R. (2019b, August 22019). Psychological well-being during adolescence: Stability and association with romantic relationships. *Frontiers in Psychology, 10*, Article 1772. https://doi.org/10.3389/fpsyg.2019.01772

Gray, P. B., Garcia, J. R., & Gesselman, A. N. (2019). Age-related patterns in sexual behaviors and attitudes among single U.S. adults: An evolutionary approach. *Evolutionary Behavioral Sciences*, *13*(2), 111–126. <u>https://doi.org/10.1037/ebs0000126</u>

Harun, H. N. (2022, October 7). 2023 budget: Tax relief up to RM3,000 for preschool, kindergarten fees. NST Online. <u>https://www.nst.com.my/news/nation/2022/10/838195/2023-budget-tax-relief-rm3000-preschool-kindergarten-fees</u>

Harvey, M. (2019). Shifting romantic relationships motivations: Can people be primed to desire particular romantic partners? (Publication No. 13903087) [Master's thesis, Wayne State University]. ProQuest One Academic.

Heise, L., Greene, M. E., Opper, N., Stavropoulou, M., Harper, C., Nascimento, M., & Zewdie, D. (2019). Gender inequality and restrictive gender norms: Framing the challenges to health. *The Lancet,* 393(10189), 2440–2454. <u>https://doi.org/10.1016/S0140-6736(19)30652-X</u>

Hindes, S., & Urry, K. (2022). How COVID-19 is (and is not) changing the way we talk about sex and dating: A critical analysis of sex advice during the pandemic. *Sexualities*. Advance online publication. https://doi.org/10.1177/13634607221112648

Holland, J. A. (2013). Love, marriage, then the baby carriage? Marriage timing and childbearing in Sweden. *Demographic Research,* 29, 275–306. <u>https://doi.org/10.4054/DemRes.2013.29.11</u>

Holland, J. A. (2017). The timing of marriage vis-à-vis coresidence and childbearing in Europe and the United States. *Demographic Research, 36*, 609–626. <u>https://doi.org/10.4054/DemRes.2017.36.20</u>

ldris, I. B., Bin Sulaiman, S. K., Hod, R., Khazaei, H., & Abdullah, N. N. (2022). A qualitative study to explore the determinants of risky sexual behaviors and pregnancy among female adolescents in Sabah, *Malaysia. Obstetrics and Gynecology International, 2022*, Article e1866326. <u>https://doi.org/10.1155/2022/1866326</u>

Ismail, K., & Hamid, S. R. A. (2016). Communication about sex-reproductive health issues with adolescents: A taboo among Malaysian parents? *European Journal of Social Science Education and Research, 3*(1), 27–41. https://doi.org/10.26417/ejser.v6i1.p27-41

Ismail, N., Mohd Hassan, H., Mahmud, A., & Mohd Yusop, S. (2021). Knowledge, attitude and behaviour of sexual and reproductive health among adolescents in Sabah: A comparison with Sarawak and Peninsular Malaysia. In N. P. Tey, S. L. Lai, & J. K. L. Chan (Eds.), *Demographic and socioeconomic changes in Sabah* (pp. 301–323). Penerbit Universiti Malaysia Sabah.

Jacobs, J. (2021). *Relationships: Finding love with the help of technology*. The Edge Malaysia. <u>https://theedgemalaysia.com/article/relationships-finding-love-help-technology</u>

Jacobs Bao, K., & Lyubomirsky, S. (2013). Making it last: Combating hedonic adaptation in romantic relationships. *The Journal of Positive Psychology, 8*(3), 196–206. https://doi.org/10.1080/17439760.2013.777765

Jacobs, J. (2021). Relationships: Finding love with the help of technology. The Edge Malaysia. https://theedgemalaysia.com/article/relationshipsfinding-love-help-technology

Jolink, T. A., Way, B. M., Younge, A., Oveis, C., & Algoe, S. B. (2023). Everyday co-presence with a romantic partner is associated with lower C-reactive protein. *Brain, Behavior, and Immunity, 107*, 132–139. https://doi.org/10.1016/j.bbi.2022.09.007

Jones, G. , & Gu, X. (2023). Men's marriage trends in Asia: Changes and continuities. *Journal of Family Issues*. Advance online publication. https://doi.org/10.1177/0192513X231155656_Jones, G. W. (2017). Changing marriage patterns in Asia. In Z. Zhao & A. C. Hayes (Eds.), *Routledge handbook of Asian demography* (pp. 351–369). Routledge. https://doi.org/10.4324/9781315148458-19

Jones, G. W. (2021). Divorce in Malaysia: Historical trends and contemporary issues. *Institutions and Economies*, *13*(4), 35–60. <u>https://doi.org/10.22452/JJIE.vol13no4.2</u>

Jones, G., & Gu, X. (2023). Men's marriage trends in Asia: Changes and continuities. *Journal of Family Issues*. <u>https://doi.org/10.1177/0192513X231155656</u>

Joseph, G. (2016, November 1). Global survey reveals that Malaysians are the oldest to lose their virginity. World of Buzz. https://worldofbuzz.com/global-survey-reveals-malaysians-oldest-lose-virginity/

Kafaee, N., & Kohut, T. (2021). Online sexual experiences and relationship functioning in long distance relationships. *The Canadian Journal of Human Sexuality*, *30*(1), 15–25. <u>https://doi.org/10.3138/cjhs.2020-0038</u>

Kamal, N. M., Wan Afandi, W. N. H., & Alias, N. Z. I. (2022). A systematic literature review on interpersonal communication activities among intimate partners. *Journal of Positive School Psychology*, 6(4), 1318–1325.

Kansky, J., & Allen, J. P. (2018). Long-Term Risks and Possible Benefits Associated with Late Adolescent Romantic Relationship Quality term risks and possible benefits associated with late adolescent romantic relationship quality. *Journal of Youth and Adolescence, 47*(7), 1531–1544. <u>https://doi.org/10.1007/s10964-018-0813-x</u>

Kennair, L. E. O., Wyckoff, J. P., Asao, K., Buss, D. M., & Bendixen, M. (2018). Why do women regret casual sex more than men do? *Personality and Individual Differences, 127,* 61–67. https://doi.org/10.1016/j.paid.2018.01.044

Klausen, S. H., Emiliussen, J., Christiansen, R., Hasandedic-Dapo, L., & Engelsen, S. (2022). The many faces of hedonic adaptation. *Philosophical Psychology*, *35*(2), 253–278. <u>https://doi.org/10.1080/09515089.2021.1967308</u>

Kobayashi, J., & Kawabata, K. (Eds.). (2019). *Henbō suru ren'ai to kekkon—Dēta de yomu Heisei* [Transforming love and marriage—Heisei read in data]. Shinyosha.

Kohno, A., Dahlui, M., Farid, N. D. N., Ali, S. H., & Nakayama, T. (2019). In-depth examination of issues surrounding the reasons for child marriage in Kelantan, Malaysia: A qualitative study. *BMJ Open, 9*(9), Article e027377. <u>https://doi.org/10.1136/bmjopen-2018-027377</u>

Kohno, A., Dahlui, M., Nik Farid, N. D., Safii, R., & Nakayama, T. (2020). Why girls get married early in Sarawak, Malaysia—An exploratory qualitative study. *BMC Women's Health, 20*(1), Article-1. https://doi.org/10.1186/s12905-020-00911-z

Lamanna, M. A., Riedmann, A., & Stewart, S. (2014). Marriages, families, and relationships: Making choices

in a diverse society (12th ed.). CENGAGE Learning.

Lapanun, P. (2019). *Love, money and obligation: Transnational marriage in a Northeastern Thai village*. NUS Press.

Lee, H.-A., & Choong, C. (2019). Inequality in Malaysia: Empirical questions, structural changes, gender aspects. *Journal of Southeast Asian Economies*, *36*(3), 329–354.

Li, N. P., & Choy, B. K. C. (2023). Partner evaluation and selection. In J. K. Mogilski & T. K. Shackelford (Eds.), *The Oxford handbook of evolutionary psychology and romantic relationships* (pp. 94–126). Oxford University Press. <u>https://doi.org/10.1093/oxfordhb/9780197524718.013.4</u>

Lian, C. W., Awang, H., Thon, C. C., Yun, L. W., Ting, T. W., Kaushal, D. N., & Hassan, H. M. (2020). Factors associated with sexual engagement among schooling adolescents in Sarawak, East Malaysia. *International Journal of Child and Adolescent Health*, *13*(3), 241–248.

Low, S. M. P., Bolong, J., Waheed, M., & Wirza, J. (2022). Online dating in Asia: A systematic literature review. *International Journal of Academic Research in Business and Social Sciences*, *12*(14), 177–195. <u>https://doi.org/10.6007/IJARBSS/v12-i14/15822</u>

Lyubomirsky, S. (2011). Hedonic adaptation to positive and negative experiences. In S. Folkman (Ed.), *The Oxford handbook of stress, health, and coping*. (pp. 200–224). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195375343.013.0011

Mahmud, Z., Rahim, R. A., Abidin, A. W. Z., & Abdullah, N. N. N. (2020). Mental and emotional wellbeing during the COVID-19 pandemic: The unprecedented Malaysian experience. *Current Psychiatry Research and Reviews*, *16*(4), 244–256. <u>https://doi.org/10.2174/2666082216666201013153842</u>

Malaysiakini. (2018, November 13). Yeoh mengaku malu nak sebut senarai penuh penceraian [Yeoh admits embarrassment at detailing divorces]. https://www.malaysiakini.com/news/451729

Manap, J., Kassim, A. C., Hoesni, S., Nen, S., Idris, F., & Ghazali, F. (2013). The purpose of marriage among single Malaysian youth. *Procedia – Social Procedia—Social and Behavioral Sciences, 82*, 112–116. https://doi.org/10.1016/j.sbspro.2013.06.233

McKeen, B. E., Anderson, R. C., & Mitchell, D. A. (2022). Was it good for you? Gender differences in motives and emotional outcomes following casual sex. *Sexuality & Culture, 26*(4), 1339–1359. <u>https://doi.org/10.1007/s12119-022-09946-w</u>

Mengzhen, L., & Berezina, E. (2022). An exploratory study on the social representation of long and short-term romantic relationship among Japanese. *Conference Proceedings from the International Conference on Student-Led Research and Innovation in Arts, Humanities & Social Sciences, 1,* 44–49.

Mengzhen, L., Berezina, E., Jaafar, W. M. W., Khir, A. M., & Hamsan, H. H. (2021). Five important considerations for the development of anti-corruption education in Malaysia for young people. *International Journal of Academic Research in Business and Social Sciences, 11*(11), 2583–2596. https://doi.org/10.6007/JJARBSS/v11-i11/11777

Mengzhen, L., & Yap, G. (2022b2022). *Mending hearts: Healing from seperation and loss, a collection of true stories*. Sunway University Press. <u>https://doi.org/10.55846/9789675492662</u>

Meor Ahmad, M. R. (2023, February 7). Ditangkap khalwat, pelajar IPT menipu kononnya pekebun buah [Caught for khalwat, IPT student claims to be a farmer]. Harian Metro. https://www.hmetro.com.my/mutakhir/2023/02/933503/ditangkap-khalwat-pelajar-ipt-menipu-kononnyapekebun-buah

Meston, C. M., Kilimnik, C. D., Freihart, B. K., & Buss, D. M. (2020). Why humans have sex: Development and psychometric assessment of a short-form version of the YSEX? instrument. *Journal of Sex & Marital Therapy*, *4*6(2), 141–159. <u>https://doi.org/10.1080/0092623X.2019.1654581</u>

Miller, Z., & Seitz, A. (2023, January 31). President Biden to end COVID-19 emergencies on May 11. AP News. <u>https://apnews.com/article/2a80b547f6d55706a6986debc343b9fe</u>

Mok, O. (2018, October 10). *Khalwat raids not meant to shame, says Penang mufti*. Malay Mail. https://www.malaymail.com/news/malaysia/2018/10/10/1681345

Moliner, P., & Abric, J.-C. (2015). Central core theory. In E. Andreouli, G. Gaskell, G. Sammut, & J. Valsiner

(Eds.), *The Cambridge handbook of social representations* (pp. 83–95). Cambridge University Press. <u>https://doi.org/10.1017/CB09781107323650.009</u>

Moorthy, K., Salleh, N. M. Z. N., T'ing, L. C., Ling, L. P., Min Yeng, D. M., Jia Ning, L., Jer Sin, L., & Pui Mun, L. (2022). Gender inequality affecting women's career progression in Malaysia. *Journal of International Women's Studies, 23*(1), Article 32310.

Morais, C., Moreira, L., Teixeira, A. S., & Aguiar, T. (2022). No waves from surface knowledge: Diving into the social representations of the deep sea. *International Journal of Science Education, Part B, 12*(1), 22–41. https://doi.org/10.1080/21548455.2021.2017507

Morrissey, A. (2020). *Emerging Adults' Utilization of Mobile Dating Apps to Find Romantic Relationships adults' utilization of mobile dating apps to find romantic relationships* (Publication No. 13904571) [Doctoral dissertation, William James College]. ProQuest One Academic.

Muhammad, N. A., Shamsuddin, K., Sulaiman, Z., Amin, R. M., & Omar, K. (2017). Role of religion in preventing youth sexual activity in Malaysia: A mixed methods study. *Journal of Religion and Health*, *56*(6), 1916–1929. https://doi.org/10.1007/s10943-016-0185-z

Mutluoglu, A., & Ashworth, L. (2021). Does customer loyalty = faithful partner? Inferences from consumers' relationship with brands affect romantic attraction. *NA - Advances NA—Advances in Consumer Research*, *49*, 512–513.

Nadzirah, A. ,&C., Kamal, M. Y., Lukman, Z. M., & Normala, R. (2018). Examining university student perception of romance relationship. *International Journal of Research and Innovation in Social Science*, *2*(12), 497–500.

Ng, Y.-K. (2022). The East-Asian happiness gap: Causes and implications. In Happiness—Concept, Y.-K. Ng (Ed.), Happiness—concept, measurement and promotion (pp. 133–143). Springer. https://doi.org/10.1007/978-981-33-4972-8_13

Nilsson, A., Rosendahl, I., & Jayaram-Lindström, N. (2022). Gaming and social media use among adolescents in the midst of the COVID-19 pandemic. *Nordic Studies on Alcohol and Drugs, 39*(4), 347–361. <u>https://doi.org/10.1177/14550725221074997</u>

Olmstead, S. B., & Anders, K. M. (2021). Sexual activity in the context of romantic relationships. In E. M. Morgan & M. H. M. van Dulmen (Eds.), *Sexuality in emerging adulthood* (pp. 99–116). Oxford University Press. <u>https://doi.org/10.1093/oso/9780190057008.003.0007</u>

Olmstead, S. B., & Anders, K. M. (2022). Are the developmental features of emerging adulthood associated with willingness to engage in consensually nonmonogamous relationships? *Archives of Sexual Behavior*, *51*(3), 1813–1822. <u>https://doi.org/10.1007/s10508-021-02258-4</u>

Olson, J. G., & Rick, S. I. (2022). "You spent how much?" Toward an understanding of how romantic partners respond to each other's financial decisions. *Current Opinion in Psychology, 43*, 70–74. https://doi.org/10.1016/j.copsyc.2021.06.006

Orosz, G. (2010). Social representation of competition, fraud and academic cheating of French and Hungarian citizens [Doctoral thesis, Eötvös Lóránd University]. Theses.fr.

Ozili, P. K., & Arun, T. (2023). Spillover of COVID-19: Impact on the global economy. In U. Akkucuk (Ed.), *Managing inflation and supply chain disruptions in the global economy* (pp. 41–61). IGI Global. <u>https://doi.org/10.4018/978-1-6684-5876-1.ch004</u>

Pacher, A. (2022). (No) sex in Japan: A sociology of sexlessness in intimate relationships. Springer. https://doi.org/10.1007/978-981-16-8464-7

Pak, A., Adegboye, O. A., Adekunle, A. I., Rahman, K. M., McBryde, E. S., & Eisen, D. P. (2020). Economic consequences of the COVID-19 outbreak: The need for epidemic preparedness. *Frontiers in Public Health, 8*, Article 241. <u>https://doi.org/10.3389/fpubh.2020.00241</u>

Peel, R., & Caltabiano, N. (2021). Why do we sabotage love? A thematic analysis of lived experiences of relationship breakdown and maintenance. *Journal of Couple & Relationship Therapy, 20*(2), 99–131. https://doi.org/10.1080/15332691.2020.1795039

Piemonte, J. L., Conley, T. D., & Gusakova, S. (2019). Orgasm, gender, and responses to heterosexual casual sex. *Personality and Individual Differences, 151*, Article-109487. <u>https://doi.org/10.1016/j.paid.2019.06.030</u>

Pipitone, R. N., Cruz, L., Morales, H. N., Aladro, D., Savitsky, S. R., Koroleva, M., Valdez, F., Campbell, E., & Miranda, S. (2021). Sex differences in attitudes toward casual sex: Using STI contraction likelihoods to assess evolved mating strategies. *Frontiers in Psychology, 12*, Article 706149. https://doi.org/10.3389/fpsyg.2021.706149

Rahman, A. A., Rahman, R. A., Ismail, S. B., Ibrahim, M. I., Ali, S. H., Salleh, H., & Wan Muda, W. A. M. (2015). Factors associated with attitude toward premarital sexual activities among school-going adolescents in Kelantan, Malaysia. *Asia Pacific Journal of Public Health, 27*(2), NP1549–NP1556. https://doi.org/10.1177/1010539512449856

Rateau, P., Moliner, P., Abric, J.-C., & Moliner, P. (2023). Social representation theory. In P. A. M. van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *The handbook of theories of social psychology* (1–2, pp. 477–497). SAGE. https://doi.org/10.4135/9781446249222

Razali, S., Daud, S., Abdullah, B., Dasiman, R., Sham, F., & Khan, N. A. M. N. (2021a2021). Addressing premarital sex, ex-nuptial pregnancy and infant abandonment in Malaysia: Opinions of young people. *Journal of Contemporary Social Science and Education Studies, 1*(2), Article 266–75.

Razali, S., Sham, F., Dasiman, R., & Khan, N. A. M. N. (2021b2021). Focus group discussions with young people on premarital sex and its consequences. *Journal of ASIAN Behavioural Studies, 6*(19), Article 1945–59. https://doi.org/10.21834/jabs.v6i19.390

Riffenburgh-Kirby, K. (2021). The influence of the perception of abundant partner choice through the use of dating applications on romantic relationship commitment in emerging adults (Publication No. 2600835585) [Doctoral dissertation, Saybrook University]. ProQuest One Academic.

Sammut, G., Andreouli, E., Gaskell, G., & Valsiner, J. (2015). Social representations: A revolutionary paradigm? *Cambridge University Press*. <u>https://doi.org/10.1017/CBO9781107323650</u>

Schwarz, S., Klümper, L., & Hassebrauck, M. (2020). Are sex differences in mating preferences really "overrated"? The effects of sex and relationship orientation on long-term and short-term mate preferences. *Evolutionary Psychological Science*, *6*(2), 174–187. <u>https://doi.org/10.1007/s40806-019-00223-y</u>

Shah Alam, S., Islam, M. R., Mokhbul, Z. K. M., & Makmor, N. B. (2018). Factors affecting intention to use online dating sites in Malaysia. *International Journal of Engineering & Technology, 7*(4.28), 192–198.

Sisson, N. M., Willroth, E. C., Le, B. M., & Ford, B. Q. (2022). The benefits of living with close others: A longitudinal examination of mental health before and during a global stressor. *Clinical Psychological Science*, *10*(6), 1083–1097. <u>https://doi.org/10.1177/21677026211053320</u>

Suleman, D., Arafah, B., Abbas, H., & Delukman, A. (2021). Women discrimination in Malaysia: Examining 'the gender agenda' from the viewpoint of Lenore Manderson's Womenwomen, Politics politics, and Change Change. *Linguistica Antverpiensia, 2021*(1), 2204–2222.

Tan, C.-S., Cheng, S.-M., Nakayama, T., & George, S. (2021). Antecedents of the attitudes toward singlehood among young adults in Malaysia, Japan, and India. *Frontiers in Psychology, 12*, <u>Article 7560905389</u>. <u>https://doi.org/10.3389/fpsyg.2021.756090</u>

Thompson, A. E., & O'Sullivan, L. F. (2012). Gender differences in associations of sexual and romantic stimuli: Do young men really prefer sex over romance? *Archives of Sexual Behavior, 41*(4), 949–957. <u>https://doi.org/10.1007/s10508-011-9794-5</u>

Tillman, K. H., Brewster, K. L., & Holway, G. V. (2019). Sexual and romantic relationships in young adulthood. *Annual Review of Sociology, 45*, 133–153. <u>https://doi.org/10.1146/annurev-soc-073018-022625</u>

Trott, M., Driscoll, R., Iraldo, E., & Pardhan, S. (2022). Changes and correlates of screen time in adults and children during the COVID-19 pandemic: A systematic review and meta-analysis. *EClinicalMedicine, 48*, Article-101452. <u>https://doi.org/10.1016/j.eclinm.2022.101452</u>

Uçar, S., & Demir, İ. (2023). Exploring romantic relationship patterns among Turkish emerging adults: A grounded theory study. *Emerging Adulthood, 11*(1), 88–102. <u>https://doi.org/10.1177/21676968221094751</u>

Ullah, A. K. M. A., & Ming Yit Ho, M. Y., & H. (2021). Globalisation and cultures in Southeast Asia: Demise, fragmentation, transformation. *Global Society*, *35*(2), 191–206. https://doi.org/10.1080/13600826.2020.1747992

Vaast, E. (2007). Danger is in the eye of the beholders: Social representations of information systems security in healthcare. *The Journal of Strategic Information Systems*, *16*(2), 130–152.

Van Ouytsel, J., Punyanunt-Carter, N. M., Walrave, M., & Ponnet, K. (2020). Sexting within young adults' dating and romantic relationships. *Current Opinion in Psychology, 36*, 55–59. https://doi.org/10.1016/j.copsyc.2020.04.007

Verges, P. (1992). L'evocation de l'argent: Une méthode pour la définition du noyau central d'une représentation [The evocation of money: A method for defining the central core of a representation]. *Bulletin De Psychologie, 45*(405), 203–209.

Vieira do, T. do-C., Pinto, V. R. A., Rocha, F., dos Santos Pires, A. C., Minim, V. P. R., & Vidigal, M. C. T. R. (2022). New insights into perceptions of technology claims in greek-style yogurt: A view in the COVID-19 pandemic. *Food Research International, 161*, Article-111822. https://doi.org/10.1016/j.foodres.2022.111822

Wachelke, J., & Wolter, R. (2011). Critérios de construção e relato da análise prototípica para representações sociais [Criteria for construction and report of prototypical analysis for social representations]. *Psicologia Teoria e Pesquisa, 27*(4), 521–526.

Wade, T. J., Fisher, M. L., Salmon, C., & Downs, C. (2021). Want to hookup?: Sex differences in short-term mate attraction tactics. *Evolutionary Psychological Science*, 7(4), 430–438. <u>https://doi.org/10.1007/s40806-021-00282-0</u>

Wan Shahrazad, W. S., Hoesni, S. M., & Chong, S. T. (2012). Investigating the factor structure of the Love Attitude Scale (LAS) with Malaysian samples. *Asian Social Science*, *8*(9), 66–73. https://doi.org/10.5539/ass.v8n9p66

Watkins, N. K., & Beckmeyer, J. J. (2020). Assessing young adults' beliefs regarding the importance of romantic relationships. *Journal of Family Issues*, *41*(2), 158–182. <u>https://doi.org/10.1177/0192513X19871080</u>

Wesche, R., Claxton, S. E., & Waterman, E. A. (2021). Emotional outcomes of casual sexual relationships and experiences: A systematic review. *The Journal of Sex Research, 58*(8), 1069–1084. https://doi.org/10.1080/00224499.2020.1821163

Win, S. S., Lasimbang, H. B., Win, M. M. C., Parash, M. T. H., Aung, S. N. L., Tat, Y. B., & Myint, T. (2020). Knowledge, attitude and practice towards sexual and reproductive health including comprehensive sexuality education among first year students of University Malaysia Sabah (UMS), Malaysia. *Malaysian Journal of Public Health Medicine*, 20(1), Article 1184–191. https://doi.org/10.37268/mjphm/vol.20/no.1/art.449

Wong, L. P., & Alias, H. (2021). Temporal changes in psychobehavioural responses during the early phase of the COVID-19 pandemic in Malaysia. *Journal of Behavioral Medicine, 44*(1), 18–28. <u>https://doi.org/10.1007/s10865-020-00172-z</u>

World Bank. (2022, November 17). A return to normal life post-COVID. https://www.worldbank.org/en/news/feature/2022/11/17/a-return-to-normal-life-post-covid

Yuansheng, F., Hanran, J., Jiewen, W., Mingfan, P., Qing, Z., Xiuli, X., Jie, L., Xinping, Y., & Xiaopeng, Q. (2022). Risk assessment of global COVID-19 pandemic in October 2022. *Disease Surveillance*, 37(11), 1393–1397. <u>https://doi.org/10.3784/jbjc.202211180507</u>

Zakaraya, S. Z. (2020, February 15). "Kami singgah berehat saja, tak buat apa-apa." ["We just stopped to rest, didn't do anything"]. Sinar Harian. https://www.sinarharian.com.my/article/70212

Zhou, Y. (2023). The benefits and dangers of online dating apps. *Canadian Journal of Family and Youth*, *15*(2), <u>Article 254–62</u>. <u>https://doi.org/10.29173/cjfy29872</u>

Zulkarnain, N. M., & Ramli, Z. (2021). Financial planning towards marriage among the millennial generation. *Malaysian Journal of Social Sciences and Humanities*, 6(1), Article 1255–267. <u>https://doi.org/10.47405/mjssh.v6i1.607</u>