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**FATHER ABSENCE AND LIFE HISTORY STRATEGY
OUTCOMES AMONG MALAYSIAN WOMEN: AN ALMOST
‘EMPTY’ SYSTEMATIC LITERATURE REVIEW**

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ABSTRACT

Understanding about the life history strategy (LHS) of Malaysian women who experienced father absence (FA) during childhood is limited. This systematic literature review (SLR) pursued a narrative synthesis methodology to investigate the links between FA and six life history (LH) decision-nodes constitutive of an individual’s LHS: pubertal timing, number of offspring, first marriage timing, first birth timing, sexual debut age, and sexual partner count in the Malaysian female population. It investigated if these decision-nodes clustered together to lie predictably on the slow-to-fast continuum. On July 17, 2022, APA PsycARTICLES, ICTRP, MEDLINE, CINAHL, ProQuest, CT.gov, Scopus, and Embase were searched for studies published prior to December 2021. One cross-sectional study, involving 567 women was found relevant. The review found that FA at any time in childhood was not linked with pubertal age or number of offspring

but only FA experienced during late childhood, not early childhood was associated with a swifter age of getting married and giving birth for the first time. It found that FA did not provoke a grouping of LH decision-nodes that were describable as ‘slow’ and ‘fast’. The review yielded no results on how FA relates to sexual debut age and sexual partner count. The Crowe Critical Appraisal Tool (CCAT) examined risk of bias and found the study to be low-risk. These findings have implications for LH decision-making research, fathering research, extant theories on fathers’ influence on daughters’ psychosexuality, LH theory’s postulation of a slow-to-fast continuum, Malaysian family policies, and Malaysian daughters from father-absent homes.

Keywords: Malaysia, women, father absence, life history strategy, systematic literature review.

INTRODUCTION

Rationale

Darwinian demons refer to organisms that can reproduce right after birth, live forever, and have infinite offspring (Uchmanski et al., 2006). Humans are bounded by biological constraints on evolution that make such a feat impossible. They do not have limitless energy to devote to two survival-enhancing activities contemporaneously and instead must face trade-offs on how to best spend the limited energy budgets that they do have across their lifespan (Del Giudice et al., 2015). Life history strategy (LHS) relates to the process of determining how much energy ought to be devoted towards activities that improve fitness and is typically characterized as choices that relate to current versus future reproduction, quantity versus quality of offspring, and mating versus parenting efforts - all of which are exchanges that are highly dependent on one another (Del Giudice et al., 2015). For example, in the second trade-off, organisms that choose to increase reproduction may gain an elevated number of offspring but face the risks of a low quality of life for their offspring be it in terms of survival, capital or reproductive success (Del Giudice et al., 2015). Such choices are represented in a living organism’s sexual and reproductive behavior - also conceptualized as life history (LH) decision-nodes or LH traits (Del Giudice et al., 2015). According to LH theory, these decision-

nodes will group together in ways that can be described as ‘fast’ and ‘slow’ on a continuum (Del Giudice et al., 2015). Despite the ongoing debate about what is characteristic of a fast as opposed to a slow LHS (Frankenhuis & Nettle, 2020), there is consensus that potential markers include the timing of sexual and reproductive behavior (e.g., pubertal age, sexual debut age, first birth age, first marriage age), the output of sexual and reproductive behavior (e.g., number of offspring), and the kind of sexual and reproductive mode (e.g., sexual partner count) (Del Giudice et al., 2015). Having multiple partners, bearing many offspring, and having earlier ages of reaching puberty, debuting sexually, having a first child, and having a first marriage are generally thought to mark a ‘fast LHS’ (Del Giudice et al., 2015).

A huge bulk of literature has suggested that what shapes an organism’s LHS are the restraints and chances that it faces in its surroundings, particularly during childhood (Del Giudice et al., 2015). In light of the prominence of parents in creating the environments in which their offspring grow, significant theoretical work has been advanced that delves into how parental investment affects the developmental outcomes of children. A central idea since the 19th century has been that regardless the physical absence or presence of fathers, they have an important function in their daughters’ calibration of their LHS. A prominent attempt to illuminate the functions of fathers in their daughters’ psychosexuality can be credited to Freud’s Oedipal complex. Freud (1931) noticed that between the ages of three and five, girls are upset at their mothers for failing to provide them with penises and depreciative of their mothers who they now see as castrated, they then shift their attachment from their first love i.e. their mothers to their fathers, who become primary love objects and he theorized three potential reactions to such penis envy: (1) severe frustration with phallic activity giving way to the complete repudiation of any form of sexuality, (2) rejection of emasculation, defiant cleaving to the masculine gender identity, and an unremitting desire for a penis resulting in a psycho-neurotic masculinity complex often in the form of lesbianism, promiscuity, and prioritizing career over motherhood, and (3) sufferance of weakness, moving toward the father as the loved entity, and anticipation of a baby to replace a penis. Seeing as, the asexuality and homosexuality responses Freud spoke of tends to limit reproductive success, it is asserted that the sexual orientation (whether an individual is heterosexual or not) is closely related to the

various decision-nodes of an individual's LHS. The theoretical work that followed Freud's ideas (e.g., Karen Horney, Jung, Van Ophuijsen, Ernest Jones, August Starke, Karl Abraham, Melanie Klein, Helen Deutsch, Jeanne Lampl de Groot, Joan Riviere, Otto Fenichel, Marie Bonaparte, etc.) though unique in their contributions to female sexuality was similar to Freud in their postulation of the idea that without the substantive father presence (FP), a daughter's ability to develop femininity by adopting her innate sexual role of becoming a mother is disturbed as there is no figure to bolster her wishes for a child and man.

More recently, there have been attempts to provokingly reforge pioneering Freudian and neo-Freudian ideas of early father influence on female sexuality. These theoretical attempts mainly include: the paternal investment hypothesis (Draper & Harpending, 1982), the daughter guarding hypothesis (Flinn, 1988), the psychosocial acceleration hypothesis (Belsky et al., 1991), Chisholm's (1993) model, the child development hypothesis (Ellis, 2004), and Rickard et al.'s (2014) internal prediction model. These theories respectively posited that: (1) girls who experience FA in the first five years of life will perceive male parenting efforts as insignificant for future reproduction, and thereby become sexually active sooner, be less discerning in sexual partner selection, and develop less stable lifelong monogamy while girls raised in father-present homes during early childhood will see fatherly contribution as key for reproductive careers, and so have more non-fluctuating pair-bondings (Draper & Harpending, 1982), (2) FP facilitates the fulfillment of the Darwinian instinct to defend daughters' sexual repute, conserve their coupling worth, and shield them against sexual corruption which leads to a fast LHS among daughters with a background of FA (Flinn, 1988), (3) being exposed to FA and their resultant rejecting, harsh, insensitive, and/or unpredictable parenting between the ages of five and seven will trigger an insecure attachment style and its related mistrustful internal working (IW) model of the self, others, and relationships which then quickens puberty, speeds up sexual debut, and orients the child toward relatively promiscuous, short-lived and erratic pair-bonding, and diminished contribution in offspring while being exposed to FP and their consequent sensitive, positively affectionate, responsive, and supportive parenting during early childhood will provoke a secure attachment style and its related trusting IW model

and reciprocally-beneficial orientation to the world which then delays their LHS (Belsky et al., 1991), (4) FA throughout childhood signals to children their local environment has a high mortality rate which then encourages them to form avoidant IW models and pursue behaviors that have increased fitness in taxing surroundings such as earlier puberty, more sexual partnerships, and more unstable bonds whereas FP conveys to children a low mortality rate, thereby eliciting secure internal working models and behaviors that improve fitness in benign surroundings (Chisholm, 1993), (5) FP all through childhood signifies elevated parental inputs and an offspring will postpone her growth to exploit the advantageousness of such investment and go into the realm of sexual and reproductive choice-making only after a high degree of embodied capital has been amassed (Ellis, 2004), and (6) FA sways a child's internal condition i.e. their physiology and psychology so to speak which moves them toward sooner reproduction (Rickard et al., 2014).

These numerous theories have generated many predictions. Accordingly, the relationships between FA in childhood and a daughter's LHS has become one of the most commonly investigated relationships in western, educated, industrialized, rich and democratic (WEIRD) contexts (Sear, 2017). In such places, FA during childhood was often linked with having many offspring, having multiple sexual partners, and an earlier age of reaching the milestones of maturing sexually, debuting sexually, birthing, and marrying (Del Giudice et al., 2015; Hill et al., 2016). But, despite the broad base of WEIRD studies on the topic, determining how the LHS of daughters from non-WEIRD settings such as Malaysia is affected by FA remains an enormous trouble.

Two rationales demonstrate the imperative of filling in the knowledge gap on what existing Malaysian literature says about the relationships between FA and female LHS. Chiefly, given the growing worry about the growth of Malaysian kids in homes that lack fathers ("NGO: Best gift fathers", 2021; Piang et al., 2017) particularly daughters (Gan, 2018), illuminating Malaysian daughters' LHS - a construct prognostic of how kids develop physically, psychologically, and socially (Del Giudice et al., 2015) can offer a quick understanding of the impacts of FA and swift response to such concerns. The concern about children in father-absent homes is not baseless. There has been a rise in divorce

in Malaysia (Yusof, 2020). This trend is contemporaneous with the tendency of mothers to be the main child custodian legally (Yuin, 2016) has ushered in a fatherhood crisis (“NGO: Best gift fathers”, 2021). The emphasis on how daughters fare with limited fathering is further justified by the fact that there has been a neglect of research on FA, father involvement (FI), and fathering as it relates to Malaysian children (Juhari et al., 2013), especially in the context of the impact of father-daughter relationships (Gan, 2018). This research niche is also supported by the findings that Malaysian teenage girls appear to perceive more father involvement be it expressive or instrumental than their male counterparts (Yap et al., 2013) which suggests that the effects of fathers on daughters may be more discernible and important. A comprehensive intellectual cognizing of the responsibility fathers have in transmitting handicaps across generations in the context of female LHS choice-making has societal implications. It has been linked to the identification of ways to make financially and interpersonally effective decisions at the personal and institutional level (Smith-Brown, 2015) – insights that may be of significant value in light of Malaysia’s current movement to embolden the choice-making of Malaysian women and improve their involvement in political, economic, and social life (“Empowering women will continue”, 2021) and the reality that in South East Asian countries like Malaysia, women who calibrate a fast LHS tend to on average face poor outcomes in health, education, autonomy, and public prestige (Marphatia et al., 2017) which consequently prompts them toward experiencing less equality.

The second justification for consulting an exclusively Malaysian research base on the relationship between FA and female LHS has to do with the possibility that the findings from WEIRD populations may not be generalizable past the WEIRD context (Clancy & Davis, 2019; Sear, 2020a) and the fact that warning calls have been raised against clumping together an array of distinct non-WEIRD populations (Astuti & Bloch, 2010). The intellectual theorizing on the limited applicability of WEIRD findings is rooted in the growing evidence of the exceptionality of WEIRD populations compared to the rest of the world in key dimensions that might affect psychological phenomena (Arnett, 2008; Henrich et al., 2010; Henrich, 2020). Examples of this developing proof include the fact that unlike the rest of the world, WEIRD populations regard the atomized nuclear family as the normative family structure (Sear, 2017), pursue the

male breadwinner/female homemaker model as the typical form of mothering and fathering (Hewlett, 2000), have a privileged resource distribution pattern where there is abundant access to food resources and limited use of energy to secure survival (Sear et al., 2019), and sit on the extreme end of the human distribution when it comes to personality, cognitive processes, visual perception, reasoning, and child development (Henrich et al., 2010; Levine et al., 2012; Schmitt et al., 2017).

Thinking this theorizing about the lack of generalizability of WEIRD findings to its logical conclusion, researchers have argued that the concepts that form the bedrock of the discussed theories may not work in non-WEIRD cultures (Sear et al., 2019). For example, the premise that attachment is the mechanism that connects early life experiences of FA and LHS which all the discussed theories make may be applicable in cultures where traditional masculinities and femininities are normative (Clancy & Davis, 2019) but may not hold true in Malaysia where there is a less patriarchal attitude toward division of labor (Hirschman, 2016) and where gender differences are minimal (Schmitt et al., 2017). Similarly, the daughter guarding and child development hypotheses' assumption that delayed reproduction is beneficial may only work in low-fertility high-income post-demographic worlds in which increasing in capital and delaying first birth are key for success (Kaplan, 1996) but may not be applicable in a transitional low-fertility and high middle-income country such as Malaysia. Also, the supposition by the psychosocial acceleration theory and Rickard and his colleagues' internal prediction model that significant fatherly investment is typical and its absence triggers stress and adversity may not hold true in settings like Malaysia where extended family networks and fathers being easily substituted are the norms (Roy, 1984; Sear et al., 2019).

The motivation to not treat all less non-WEIRD samples as homogeneous and by extension their findings as applicable across the board relates to the observation that within non-WEIRD populations themselves, there is great variation with respect to fatherhood norms (Yeung, 2013) and psychology (Mutukrishna et al., 2020). For example, while Malaysia and Indonesia both appear to be quite similar, research however, has indicated that both countries are not similarly distanced from WEIRD nations in terms of the Big 5, tolerance for deviancy, collectivism-individualism power distance, femininity-masculinity,

long-term orientation, uncertainty avoidance, indulgence, corruption, altruism, intellectual autonomy, affective autonomy, harmony, mastery, embeddedness, hierarchy, and egalitarianism, with Malaysia and Indonesia scoring 124 and 178 respectively (Mutukrishna et al., 2020).

There is merit to the claim that to grasp the LHS of Malaysian women who experience FA in childhood, WEIRD findings and findings from other non-WEIRD nations are not applicable. It is congruent with a topical non-systematic review that documented that while a staggering 60 percent of WEIRD findings have reliably indicated hastening links between FA and pubertal timing, this relationship was more speckled in non-WEIRD contexts, with studies showing both accelerated and decelerated ages of reaching menarche among daughters with FA in their background and at times, an altogether inconsequential linkage (Sear et al., 2019). A non-WEIRD lens has been recognized as essential to elucidating the human LHS in non-WEIRD settings (Barrett, 2020; Sear, 2020a). A data-thrusted strategy relying non-WEIRD data (Sear et al., 2019), particularly secondary-data (Sear, 2020b) has been suggested to clarify the extent of the generalizability of WEIRD findings (Sear et al., 2019).

While there has been one effort at analyzing current literature (see Sear et al., 2019), the review was not specific to the Malaysia setting, was not systematic and thus unreplicable, and only looked at one LH decision-node i.e. pubertal timing. As of the writing of this SLR, there has not been a SLR of non-WEIRD literature that has inspected how FA links to other LH decision-nodes constitutive of an individual's LHS such as first marriage timing, first birth timing, and mating (Sear et al., 2019). Stronger conclusions about non-WEIRD populations demand an additionally full and inclusive review of the literature in terms of sample diversity and number of LH decision-nodes examined (Sear et al., 2019). Even though it is likely that LH decision-nodes other than puberty will group together in ways LH theory suggests, little to no studies have tested whether this assumption is true in non-WEIRD contexts (Sear, 2020a) and on the rare occasion such questions were addressed, the reverse was confirmed (Mell et al., 2019).

Objectives

Thus, the main aim of this SLR was to characterize the links between FA and the six LH decision-nodes constitutive of an individual's

LHS: pubertal timing, number of offspring, first marriage timing, first birth timing, sexual debut age, and number of sexual partners in the Malaysian female population. A second goal of this SLR was to examine if these six LH decision-nodes clustered together to lie predictably on the slow-to-fast continuum.

METHODOLOGY

The Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) 2020 Statement was adhered to the degree where feasible and applicable in the SLR.

Eligibility Criteria

There were seven inclusion criteria used. They included: (1) longitudinal and cross-sectional quantitative distinct studies and randomized controlled studies, (2) studies published in scholarly journals, conference papers, and conference proceedings, (3) studies published before the 31st of December, 2021, (4) studies written in Malay, Indonesian, and English, (5) studies that entailed the FA condition, (6) studies that included any one of the six LH decision-nodes that make up an individual's LHS namely pubertal age, sexual debut age, first marriage timing, first birth timing, number of offspring, and number of sexual partners, and (7) studies that sampled the Malaysian female population of all ages. Randomized controlled trials were included because there are protocols for a randomized clinical trials involving father involvement as an intervention. The exclusion criteria were case studies, nonsystematic reviews, meta-syntheses, and systematic reviews.

Information Source

Due to applicable coverage, high efficiency of duplicating results when identical queries are used, high ease of retrieving records, and high efficiency of articulating the search through filters and lengthy and Boolean queries, (Gusenbauer & Haddaway, 2019), these eight academic search systems (ASSs) were searched: APA PsycARTICLES, ICTRP (Cochrane Library), MEDLINE (Pub Med), CINAHL (Cochrane Library), ProQuest, CT.gov (Cochrane Library), Scopus, and Embase (Cochrane Library). On the 17th of July, 2022,

these academic search systems were searched and later on, an attempt to recognize extra studies was made through a manual search of the bibliographic references of the eligible study and prevailing literature reviews on comparable topics be it nonsystematic reviews, meta-syntheses, or systematic reviews.

Search Strategy

To identify eligible studies, title-abstract-keyword (TIABKW) searches were conducted in the APA PsycARTICLES, ICTRP, CINAHL, CT.gov, Scopus, and Embase ASSs and title-abstract (TIAB) searches were executed in the MEDLINE and ProQuest ASSs. The TIABKW search in the APA PsycARTICLES ASS was ran separately for the title, abstract, and keywords text fields while the TIABKW searches in the ICTRP, CINAHL, CT.gov, Scopus, and Embase ASSs involved running the search for all three text fields synchronously. The TIAB search in the ProQuest ASS was ran separately for the title and abstract text fields while the TIAB search in the MEDLINE ASS entailed running the search for both text fields simultaneously. Such diversity of text fields used relates to each ASS having different text fields options. In all ASSs, these terms were used: (“puberty*” OR “pubertal timing*” OR “age at puberty*” OR “maturation*” OR “maturity*” OR “sexual maturity*” OR “menarche*” OR “sexual debut*” OR “sexual debut timing*” OR “age at sexual debut*” OR “sexual debut age*” OR “sexual behavior*” OR “sexual intercourse*” OR “sexual activity*” OR “first sex*” OR “sexual initiation*” OR “early sex*” OR “first birth*” OR “age at first birth*” OR “pregnancy*” OR “first marriage*” OR “marital timing*” OR “age at marriage*” OR “number of sexual partner*” OR “sexual partner*” OR “mating*” OR “number of offspring*” OR “family size*” OR “life history traits*” OR “life history strategy*” OR “reproduction*” OR “sexuality*” OR “reproduction outcomes*” OR “sexual outcomes*”) AND (“father absence*” OR “father presence*” OR “father absent*” OR “paternal absence*” OR “paternal presence*” OR “single mother*” OR “family structure*” OR “risk factors*” OR “protective factors*” OR “associated factors*” OR “associated with*”) AND (“female*” OR “women*” OR “girls*” OR “adolescents*” OR “adults*”) AND (“Malaysia*” OR “Malaysian*”). Most of the terms used were assumed from past analogous SLRs that produced significant findings (e.g., Webster et al., 2014; Xu et al., 2017). The terms ‘single mother’

and ‘family structure’ were used as synonyms for FA because it is a trend within fathering research to ascertain the situation of biological fathers not living with their children in the same home to be ‘single mother’ and to use FA as one of the values of the ‘family structure’ variable (Bockneck, 2020). Table 1 summarizes the limits applied to the search strategy in each ASS in sequence of their applications.

Table 1

Limits Applied to the Search Strategy

Academic Search System	Limits Applied
APA PsycARTICLES	Date: 1000 to 2021
ICTRP,CINAHL,CT.gov. Embase (Cochrane Library) MEDLINE (Pub Med)	Content type: Trials; Cochrane Library Publication date: Between Jan 1000 and Dec 2021: CENTRAL Trials only Original Publication year: Between 1000 and 2021: Tick Search word variations, Year first published: Custom Range: 1000 and 2021: Date added to CENTRAL trials database: Custom Range: 01/01/1000 to 31/12/2021: Source : ICTRP/CINAHL/CT.gov/Embase Article Type: Clinical Trial, Meta- Analysis, Randomized Controlled Trial, Review, Systematic Review; Publication Date; Custom range: From 1/1/1000 to 31/12/2021; Language: English, Indonesian, malay, Species;Human:Journal Category: MEDLINE
ProQuest	Publication date: Specific date range: start January 1 1000 to December 31 2021; Source type: Conference Papers & Proceedings, Scholarly Journal; Language; English, Indonesian, Malay; Publication date: Custom date range: From: 1000-01- 01 to 2021-12-31; Document type : Article, Correction/Retraction, General Information
Scopus	Add Date range: Published from 1960 to 2021; Added to Scopus; Anytime: Document type: Article, Review, Conference Paper, Erratum; Source type: Journal, Conference Proceeding, Undefined; Language: English

Selection Processes

To seek out records that were irrelevant to the SLR centered on the eligibility criteria, a title-abstract (TA) screening was conducted by the reviewer. The latest Cochrane guidebook for SLRs has accepted single-reviewer (SR) screening as an apt methodological option (Higgins et al., 2019), particularly when a shortcut is needed in rapid reviews, so long as it is done by experienced reviewers (Waffenschmidt et al., 2019). In the latter phase stage of screening, to identify studies that satisfied the eligibility criteria, a full-text (FT) screening was conducted by the reviewer. SR screening of full-texts was reasoned to be optimum because of the tiny number of eligible studies, the researcher's familiarity with the topic of inquiry, and usage of precisely curated inclusion and exclusion criteria.

Data Collection Processes

The reviewer extricated data from the selected study based on the study overview or study features the relationships between FA and any of the six LH decision-nodes that make up an individual's LHS.

Data Synthesis Strategy

A narrative synthesis methodology was adopted whereby the eligible study was explained in a report that narrated the results. A meta-analysis was decided to be unfitting because the goals of the current review were about understanding whether FA affects or clusters the six LH decision-nodes in the same way it has affected WEIRD populations and non-WEIRD populations other than Malaysia. Furthermore, the second goal of determining whether the six LH decision-nodes group together to lie on a continuum that can be conceptualized as 'slow' and 'fast' life histories simply requires the inclusion of research studies that focused on more than one LH decision-node in the same study population at the same time.

Study Risk of Bias Assessment

To evaluate the risk bias of the sole eligible study found, the reviewer employed the Crowe Critical Appraisal Tool (CCAT). The CCAT was deemed optimal as it is a well-authenticated and validated means of appraising the quality of observational studies (Crowe et al., 2011). The CCAT includes these domains as key elements that

need to be critiqued: preliminaries, introduction, design, sampling, data collection, ethical matters, results, and discussion. The collective score of these eight areas was then transformed into percentage, where a score either equivalent to or more than 75 percent categorized the study as high-quality, a score between 51-74 percent deemed the study as having an acceptable quality, and a score either equivalent to or less than 50 percent denoted the study as poor-quality. Due to the researcher's familiarity with the topic of inquiry and transparency in illuminating how conclusions about bias was reached (see Table 2), the same investigator critically appraising the study was considered ideal.

Table 2

Risk of Bias

Category	Author's Judgment	Support for Judgment
Preliminaries	5/5	<p>While, the title did not reference design, the title's reference of the aim makes clear the correlational nature of the study (see Abstract section).</p> <p>The abstract contained key elements such as aims, methods, findings, and conclusions; was nuanced; and informative (see Abstract section).</p> <p>Methodologies were detailed and thus the study itself was reproducible (see Data section; Methods and Models section).</p> <p>The witting and illustrations were detailed and succinct in every section (see Results section, Figures 1-5; Tables 1-2).</p>
Introduction	5/5	<p>Current and relevant knowledge was summarized to ground the study; the study's rationale was clarified; and the literature was sufficiently linked to the stated aims, objectives, and hypotheses (see Introduction section, para. 1, lines 1-7; para. 2, line 1).</p> <p>The study has one stated objective and four stated hypotheses (see Sheppard et al., 2014, Introduction section, para. 1, line 7; para. 2, line 1). The lack of secondary questions arising out of the initial inquiry does not taint the study's quality in keeping with the CCAT handbook (Crowe, 2013).</p>

(continued)

Category	Author's Judgment	Support for Judgment
Design	5/5	The research design and its rationale were described and congruent with the study's background, objectives, aims, and hypotheses (see Data section, para. 1, lines 3-4). The study had at least one main intervention variable - the father absence variable. The study had five outcome variables: menarchal age, marital age, age at first birth, progression from marriage to first birth, and desired fertility. The rationale behind these variables and how the variables were defined and measured were clearly outlined (see Methods and Models section). Potential sources of bias were identified (see Outcome Variables Section, para. 1, lines 1-6). Potential sources of confounding variables were identified (see Sheppard et Marriage and Children Section, para. 2, line 1). Possible variables which could modify the association between the intervention variable and outcome variables were identified within the design before data collection to minimize its impact (see Marriage and Children section, para. 2, line 1).
Sampling	5/5	The sampling method, sample size, and protocol were represented and the drives behind them were explicated and compatible with the study's background, method, objectives, aims, and hypotheses (see Data Section, para. 1).
Data Collection	5/5	The data collection method and protocol and their rationales were illuminated and well matched with the study's background, method, objectives, aims, and hypotheses (see Data Section, para. 1).
Ethical Matters	4/5	<p>No information about how participant ethics pertaining to informed consent, equity, privacy, confidentiality, or anonymity was offered.</p> <p>Authors declared that they have no conflict(s) of interest and that the study was funded by the Economic and Social Research Council was clearly stated (see Sheppard et al., 2014, Acknowledgments section). No statement of ethical approval was offered. There was no description either about how researchers could have potentially influenced the outcomes of the study via their behavior, subjectivities, and personal relationships or procedures used to minimize bias during the interview process.</p> <p>Given that the study is an interview-based survey research, this lack of transparency may impact the validity and reliability of findings.</p>

(continued)

Category	Author's Judgment	Support for Judgment
Results	5/5	The study's data analysis method and protocol were described and the rationales behind then explicated (see Methods and Models section). Details on raw data were offered, results were summarized, and the precision for each outcome was offered (see Results section, Figures 1-5; Tables 1-2).
Discussion and Conclusion	5/5	Findings were summarized and interpreted within the context of objectives (see Marriage and Children section, para. 4). Findings were summarized and compared and contrasted with contemporary literature (see Conclusion section, para. 1, lines 1-4). Inferences that were made were based on the entirety of data and there was an accounting for how imprecision and other forms of bias may have impacted the results (see Discussion Section) The study's strength of studying multiple life history traits contemporaneously was highlighted (see Introduction section, para. 2, line 2). Steps to advance future results were discussed (see Limitations section, para. 1). Future research suggestions were made (see Limitations section, para. 1; Conclusion section, para. 1, line 7).
Total Score	39/40	
Percentage	97.5%	

RESULTS

Study Selection

Post duplicate and subject index removals, the 1119 records retrieved from the electronic databases and registers was whittled down to 1049. Of those 1049 records, 1044 was regarded as unqualified based on a TA screening. Of the 5 studies that qualified for a FT review, 4 were excluded because although they studied one or more of the LH decision-nodes at the crux of the SLR, the FA variable was not the focus in any of them. Reasons for exclusion are provided in Table 3. In due course, the review involved one study. Later, a search of the reference list of the included study was conducted. It found no extra articles that met the eligibility criteria. Figure 1 depicts the study selection process.

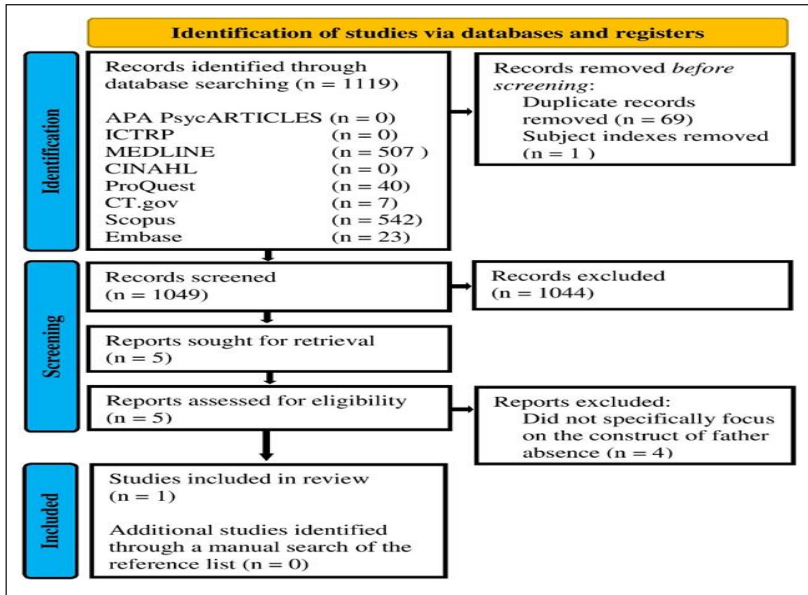
Table 3

Characteristics of Excluded Studies

Study	LH trait	Reason for exclusion
Ahmadian, M., Hamsan, H. H., Abdullah, H., Samah, A. A., & Noor, A. M. (2014). Risky sexual behavior among rural female adolescents in Malaysia: a limited role of protective factors. <i>Global Journal of Health Science, 6</i> (3), 165–174.	Age at sexual debut, number of sexual partners	Focused on the non-gender specific variables of living arrangements and family involvement.
Cheah, Y. K., Lim, H. K., & Kee, C. C. (2018). Factors associated with underage sex in Malaysia: A secondary data analysis of Malaysia Global School-Based Student Health Survey 2012. <i>Journal of Population and Social Studies, 26</i> (4), 305-320.	Age at sexual debut	Did not focus on FA.
Farid, N. D. N., Rus, S. C., Dahlui, M., Al-Sadat, N., & Aziz, N. A. (2014). Predictors of sexual risk behaviour among adolescents from welfare institutions in Malaysia: A cross sectional study. <i>BMC Public Health, 14</i> .	Age at sexual debut, number of sexual partners	Focused on the non-gender specific variables of family connectedness and family structure.

Figure 1

Flow Diagram of the Selection Process Carried out to Determine Studies for Inclusion in this SLR based on the PRISMA 2020 Statement.



Characteristics of the Study

The included study was conducted by Sheppard et al. (2014) with the objectives of investigating the links between FA and five later life fertility outcomes i.e. age at menarche, marital age, first birth age, speed of transition from marriage to first birth, and preferred fertility among Malaysian women using a cross-sectional interview-based survey research. It randomly sampled 567 adult Malaysian women by seeking out a randomly selected sample of women who were part of the 1988-1989 follow-up Malaysian Family Survey study (acronymized as MFLS-2) as children and locating women with adult daughters. The MLFS-2 constitutes one of the most representative and comprehensive datasets of the racially diverse West Malaysia due to its rigorous sampling protocol (RAND, 2012). This is exemplified by the fact that it has been widely used by local and global researchers. As of 2012, it has been the source of data for over 200 citations in books, papers, and articles, and 50 theses (RAND, 2012). The study found that there were no significant associations between FA be it

during early childhood (birth to age 7) or late childhood (ages 8 to 15) and three of the five LH traits studied i.e. menarchal timing, intended number of offspring and progression from marriage to first birth but FA during late childhood, although not during early childhood was linked with an earlier age at first marriage and first birth.

Risk of Bias in Study

The study was found to be of high-quality (97.5%). Support in favor of this critical appraisal judgment has been provided in Table 2.

DISCUSSION

Summary of Main Results and Interpretation

The review's first main result was the age at which a daughter reaches menarche (a puberty marker) and the number of children she hopes to bear (a proxy for number of offspring in one's lifetime) were not meaningfully associated with FA irrespective of whether FA happened in early childhood or late childhood in the Malaysian female population. These results are incompatible with a majority of WEIRD-based findings which have documented that FA quickens women's puberty (Sheppard et al., 2019; Webster et al., 2014) and increases their number of offspring (Del Giudice et al., 2015). If looked at via a theoretical lens, it is clear that the direction and timing of these correlations are inconsistent with all six of the discussed theories which all see a rushed LHS among daughters who experienced father absenteeism.

The review's second main result was that FA experienced in late childhood, although not early childhood was associated with a swifter age of getting married and giving birth for the first time. These results are interestingly parallel to the the correlations found in post-transition, low-fertility WEIRD contexts where similar links were found but divergent from pre-transition, high-fertility non-WEIRD communities where FA was correlated with delayed reproductive timing (Shenk, 2013). When looked at via a theoretical perspective, it is evident that while the direction of these associations are congruous with all six of the discussed theories, the timing of these associations remain contradictory with the paternal investment model, the psychosocial

acceleration theory, and the Chisholm model which all hold early life to be a critical phase of learning. All these lack of cohesiveness borne out of discussing these results imply that in essence, the theories proposed thus far about the impact of fathers on daughter's LHS may be simply half-baked in the

Malaysian setting and thus in need of minor or major modifications. They could be glossing over pertinent concepts that would make them sound in the Malaysian setting. This interpretation is agreeable with the researchers of the study who noted that better understandings of how FA causes the LH trajectory seen in the Malaysian context are needed (Sheppard et al., 2014). At a higher level, this interpretation is also accordant with the ongoing raging debate within the human LH discipline that LH researchers must go beyond tacitly accepting that the motivating postulations about trade-offs as true and testing extrapolations that ensue from these postulations a movement elicited mainly by the recognition that WEIRD-based literature on current-future, quantity-quality, and mating-parenting trade-offs has a discordant nature (Bolund, 2020; Frankenhuis & Nettle, 2020). Another interpretation of these two main results is that that these irregularities are merely the result of poor methodological choices. While no study is perfect and there is always room for improvement, because the study in particular when above and beyond via its: (1) adjusting for household wealth, thereby reducing confounding, (2) use of desired family size to indicate the LH decision-node of number of offspring which has been shown to be a fair indicator of completed fertility, (3) use of more an additional proxy namely parental wealth for the FA variable, (4) its use of a randomly selected sample and a sample size that is sufficient to allow for examination of the interaction between FA and the studied LH decision-nodes, this interpretation remains a low likelihood.

Even though, the review was unable to illustrate the links between FA and two LH decision-nodes i.e. age at sexual debut and number of sexual partners, there were sufficient LH decision-nodes addressed to shed light on the SLR's evaluation if the LH decision-nodes stick together to lie consistently on the slow-to-fast continuum. This analysis constitutes the third main result of the review. It is evident from the two main findings that FA did not provoke an interrelated clique of LH decision-nodes that were describable as 'slow' and 'fast'. This result is incongruent with findings from both WEIRD and

non-WEIRD societies (van-Brummen et al., 2015). It suggests that the idea of the slow-to-fast continuum needs a re-evaluation mainly in the Malaysia's setting and consequently, psychometric tools that conceptualize LHS as resting on a dimension of fast and slow may not be applicable in Malaysia. These three main results are consistent with the reviewer's a priori assumptions that FA may not affect or cluster the six LH decision-nodes in question in the same way it has affected WEIRD populations and non-WEIRD populations other than Malaysia.

Limitations of Review Evidence and the Review Process

The strength of the evidence was robust. While the review included only one eligible study, seeing as the included study was one of high quality (as evidenced in Table 2 and the Discussion section on methodological errors), there were limited constraints to the applicability of the evidence. The major weakness of the process was that TA screening, FT screening, and bias assessment was conducted by one reviewer. But, by giving a clear and precise protocol and transparency about how it was implemented (as demonstrated by Tables 1-3 and the Methodology section), the researcher has attempted to reduce potential biases.

IMPLICATIONS

From a research standpoint, there is a necessity for additional longitudinal and cross-sectional quantitative studies that quantify the relationships between FA and the LH decision-nodes that make up an individual's LHS. Such research will jumpstart the journey of identifying which WEIRD-based theories and their corollary hypotheses apply in Malaysia. Preferably, such research will investigate more than one LH decision-node at the same time so that conclusions can be drawn on the notion of a slow-to-fast continuum. Contemporaneous to such a demand for Einsteinian theory-driven quantitative research is an equal requirement for Fayerabendian knowledge-driven qualitative research that delves into deep that is to say primal and phenomenological understandings of Malaysian fathering, FA, FP, FI, father-daughter attachment, how daughters who experience FA at any time in childhood make LHS decisions,

how a childhood characterized by FA actually shapes Malaysian daughters' attachment patterns and LHS. Such research that offer thick description of such realities from the ground-up of the phenomena itself could begin the steps of responding to omitted, misconstrued, or not-thoroughly touched upon realities and concepts that the existing theories need to remedy in order to be fully-baked and thus applicable in the non-WEIRD setting of Malaysia and more illuminative in WEIRD settings. While qualitative research is often dismissed in the evolutionary social sciences (ESS) (Astuti & Bloch, 2010), it is key to recall that the wonderful achievements of Darwin (the father of LH theory) was as inductive as one's imagination.

With no theoretical framework to cling to and mere joy of exploring new worlds, he conceived today's visionary evolutionary psychology field. These two future research proposals are consistent with the case currently being made within the ESSs and human LH fields that to reconcile inconsistent findings, researchers must stop forgoing the initial tasks of observing the phenomena of LH decision-making and moving too rapidly to testing predictions generated from their forerunners' assumptions which they unquestionably think is right (Barrett, 2020; Sear, 2020b). These research suggestions also echo the arguments by Astuti and Bloch (2010) that there ought to be a reconciliation between internal validity and generality to allow for first, non-WEIRD findings to be a salient feature of any theory on humans and inevitably, for a theory on humans to be feasible and predictive in all cultural settings.

From a political lens, Malaysian policymakers have limited valuable proof upon which they can ground their policies on family life. As it stands, Malaysian advocates and politicians push for action that accentuate the centrality of the nuclear family and view the weakening of such a familial unit as the decisive cause of societal ills ("NGO: Best gift fathers", 2021; Piang et al., 2017) with little to no basis in native research findings (Piang et al., 2017). Such plans, outlooks, and dogmas may negatively impact alternative family entities (Sear, 2017).

From a practice standpoint, Malaysian women from households that lack father involvement are warranted to be disheartened in the research world. Those concerned may aspire to petition for additional studies in this sphere.

OTHER INFORMATION

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REFERENCES

- Arnett J. J. (2008). The neglected 95%: Why American psychology needs to become less American. *The American Psychologist*, 63(7), 602–614.
- Astuti, R., & Bloch, M. (2010). Why a theory of human nature cannot be based on the distinction between universality and variability: Lessons from anthropology. *Behavioral and Brain Sciences*, 33(2-3), 83-84.
- Barrett, H. C. (2020). Deciding what to observe: Thoughts for a post-WEIRD generation. *Evolution and Human Behavior*, 41(5), 445–453.
- Belsky, J., Steinberg L., & Draper, P. (1991). Childhood experience, interpersonal development, and reproductive strategy: An evolutionary theory of socialization. *Child Development*, 62(4), 647–670.
- Bockneck, E. L. (2020). A family systems perspective on father absence, presence, and engagement. In H. E. Fitzgerald, K. v., Klitzing, N. J. Cabrera, J. S. de M., & T. Skjøthaug (Eds.), *Handbook of fathers and child development* (pp. 105-120). Springer.
- Bolund, E. (2020). The challenge of measuring trade-offs in human life history research. *Evolution and Human Behavior*, 41(6), 502-512.
- Chisholm, J. S. (1993). Death, hope, and sex: Life-history theory and the development of reproductive strategies. *Current Anthropology*, 34(1), 1–24.
- Clancy, K. B., & Davis, J. L. (2019). Soylent is people, and WEIRD is white: Biological anthropology, whiteness, and the limits of the WEIRD. *Annual Review of Anthropology*, 48(1), 169-186.
- Crowe, M. (2013). *Crowe Critical Appraisal Tool (CCAT) user guide*. <https://conchra.com.au/wp-content/uploads/2015/12/CCAT-user-guide-v1.4.pdf>
- Crowe, M., Sheppard, L., & Campbell, A. (2011). Comparison of the effects of using the Crowe Critical Appraisal Tool versus

- informal appraisal in assessing health research: A randomised trial. *International Journal of Evidence-Based Healthcare*, 9(4), 444-449.
- Del Giudice, M., Gangestad, S. W., & Kaplan, H. S. (2015). Life history theory and evolutionary psychology. In D. M. Buss (Ed.), *The handbook of evolutionary psychology: Volume 1 Foundations* (pp. 88–114). Wiley.
- Draper, P., & Harpending, H. (1982). Father absence and reproductive strategy: An evolutionary perspective. *Journal of Anthropological Research*, 38(3), 255-273.
- Ellis B. J. (2004). Timing of pubertal maturation in girls: An integrated life history approach. *Psychological Bulletin*, 130(6), 920–958.
- Empowering women will continue. (2021, March 8). *Bernama*. <https://www.bernama.com/en/general/news.php?id=1938920>
- Flinn M. V. (1988) Parent–offspring interactions in a Caribbean village: Daughter guarding. In L. Betzig, M. Borgerhoff Mulder, & P. Turk (Eds.), *Human Reproductive Behaviour* (pp. 189– 200). Cambridge University Press.
- Frankenhuis, W. E., & Nettle, D. (2020). Current debates in human life history research. *Evolution and Human Behavior*, 41(6), 469-473.
- Freud, A. (1931). Female sexuality. In A. Freud, Strachey, A., & Tyson, A. (Eds.), *The future of an illusion civilization and its discontents and other works* (pp. 223–225). The Hogarth Press & The Institute of Psycho-analysis.
- Gan, S-W., Tan, J-P., Yaacob, S. N. (2015). *Parental care and socio-psychological symptoms among Malaysian preadolescents: The effect of cross-gender parent-child relationships*. http://www.kuasu.cpi.kyoto-u.ac.jp/wp-content/uploads/2015/12/GAN-suwan_template_edited-5jan2015.pdf
- Gusenbauer, M., & Haddaway, N. R. (2020). Which academic search systems are suitable for systematic reviews or meta-analyses? Evaluating retrieval qualities of Google Scholar, PubMed, and 26 other resources. *Research Synthesis Methods*, 11(2), 181-217.
- Henrich, J. (2020). *The WEIRDest people in the world: How the West became psychologically peculiar and particularly prosperous*. Straus & Giroux.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world?. *Behavioral and Brain Sciences*, 33(2-3), 61-83.
- Hewlett, B. S. (2000). Culture, history, and sex: Anthropological contributions to conceptualizing father involvement. *Marriage & Family Review*, 29(2-3), 59-73.

- Higgins J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A. (2019). *Cochrane handbook for systematic reviews of interventions* (2nd ed.). John Wiley & Sons.
- Hill, S. E., Leyva, R. P. P., & DelPriore, D. J. (2016). Absent fathers and sexual strategies. *Psychologist, 29*(6), 436-439.
- Hirschman, C. (2016). Gender, the status of women, and family structure in Malaysia. *Malaysian Journal of Economic Studies, 53*(1), 33-50.
- Juhari, R., Yaacob, N., & Talib, M. A. (2013). Father involvement among Malay Muslims in Malaysia. *Journal of Family Issues, 34*(2), 208-227.
- Kaplan, H. (1996). A theory of fertility and parental investment in traditional and modern human societies. *American Journal of Physical Anthropology: The Official Publication of the American Association of Physical Anthropologists, 101*(S23), 91-135.
- Law, R. (1979). Optimal life histories under age-specific predation. *The American Naturalist, 114*(3), 399-417.
- Levine, R. A. (2014). *Attachment theory as cultural ideology*. In H. Otto & H. Keller (Eds.), *Different faces of attachment: Cultural variations on a universal human need* (pp. 50–65). Cambridge University Press.
- LeVine, R., LeVine, S., Schnell-Anzola, B., Rowe, M., & Dexter, E. (2012). *Literacy and mothering*. Oxford University Press.
- Marphatia, A. A., Ambale, G. S., & Reid, A. M. (2017). Women's marriage age matters for public health: A review of the broader health and social implications in South Asia. *Frontiers in Public Health, 5*, 269.
- Mell, H., Safra, L., Algan, Y., Baumard, N., & Chevallier, C. (2018). Childhood environmental harshness predicts coordinated health and reproductive strategies: A cross-sectional study of a nationally representative sample from France. *Evolution and Human Behavior, 39*(1), 1–8.
- Muthukarishna, M., Bell, A. V., Henrich, J., Curtin, C. M., Gedranovich, A., McInerney, J., & Thue, B. (2020). Beyond Western, educated, industrial, rich, and democratic (WEIRD) psychology: Measuring and mapping scales of cultural and psychology distance. *Psychological Science, 31*(6), 678-701.
- NGO: Best gift fathers. (2021, February 14). *New Straits Times*. <https://www.nst.com.my/news/nation/2020/02/565490/ngo-best-gift-fathers-can-give-wives-children-being-better-dads>
- Piang, T., Osman, Z., & Mahadir, N. (2017). Structure or relationship? Rethinking family influences on juvenile delinquency in Malaysia. *Asia-Pacific Social Science Review, 17*(2), 171-184.

- RAND. (2012). *The first and second Malaysian Family Life Surveys*. <https://www.rand.org/well-being/social-and-behavioral-policy/data/FLS/MFLS.html>
- Rickard, I. J., Frankenhuis, W. E., & Nettle, D. (2014). Why are childhood family factors associated with timing of maturation? A role for internal prediction. *Perspectives on Psychological Science: A Journal of the Association for Psychological Science*, 9(1), 3–15.
- Roy, P. K. (1984). Extended kinship ties in Malaysia. *Journal of Comparative Family Studies*, 15(2), 175-194.
- Schmitt, D. P., Long, A. E., McPhearson, A., O'brien, K., Remmert, B., & Shah, S. H. (2017). Personality and gender differences in global perspective. *International Journal of Psychology*, 52(S1), 45–56.
- Sear, R. (2017). Family and fertility: Does kin help influence women's fertility, and how does this vary worldwide?. *Population Horizons*, 14(1), 18-34.
- Sear, R. (2020a). Do human 'life history strategies' exist? *Evolution and Human Behavior*, 41(6), 513-526.
- Sear, R. (2020b) Strengthening the evolutionary social sciences with more data, less 'theory-worship'. *Evolution and Human Behavior*, 41(5), 462-463.
- Sear, R., Sheppard, P., & Coall, D. A. (2019). Cross-cultural evidence does not support universal acceleration of puberty in father-absent households. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 374(1770), 20180124.
- Shenk, M. K., Starkweather, K., Kress, H. C., & Alam, N. (2013). Does absence matter? A comparison of three types of father absence in rural Bangladesh. *Human Nature*, 24(1), 76–110.
- Sheppard, P., Snopkowski, K., & Sear, R. (2014). Father absence and reproduction-related outcomes in Malaysia, a transitional fertility population. *Human Nature*, 25(2), 213-234.
- Smith-Brown, S. (2015). *Perceptions of the role of a father: The perspectives of black women from low-income environments* (Order No. 3714191) [Doctoral dissertation, Capella University]. ProQuest Dissertations & Theses Global.
- Uchmanski, J., Kaliszewicz, A., & Hawro, V. (2006). Darwinian demons. *Focus on Evolutionary Psychology*, 1(9), 8-110.
- van Brummen—Girigori, O. J., & Buunk, A. P. (2015). Does father abandonment have consequences for the reproductive strategies of girls? A study in Curaçao. *Evolution, Mind and Behaviour*, 13(1), 19-35.

- Waffenschmidt, S., Knelangen, M., Sieben, W., Bühn, S., & Pieper, D. (2019). Single screening versus conventional double screening for study selection in systematic reviews: A methodological systematic review. *BMC Medical Research Methodology*, *19*(1), 132.
- Webster, G. D., Graber, J. A., Gesselman, A. N., Crosier, B. S., & Schember, T. O. (2014). A life history theory of father absence and menarche: A meta-analysis. *Evolutionary Psychology*, *12*(2), 273–294.
- Xu, Y., Norton, S., & Rahman, Q. (2018). Early life conditions, reproductive and sexuality-related life history outcomes among human males: A systematic review and meta-analysis. *Evolution and Human Behavior*, *39*(1), 40–51.
- Yap, S. T., Baharudin, R., Yaacob, S., & Osman, S. (2013). Paternal and maternal involvement in Malaysian adolescents: Test of factor structure, measurement invariance and latent mean differences. *Child Indicators Research*, *7*(1), 193-208.
- Yeung, W. J. J. (2013). Asian fatherhood. *Journal of Family Issues*, *34*(2), 143-160.
- Yuin, F. J. (2016). *Effects of parent-adolescent relationship, school engagement, and maladaptive coping on depression among adolescents from divorced families*. [Unpublished Master's thesis]. <http://psasir.upm.edu.my/>
- Yusof, T. A. (2020). Divorce rates increase, number of couples marrying dips. *New Straits Times*. <https://www.nst.com.my/news/nation/2020/11/645532/divorce-rates-increase-number-couples-marrying-dips>