# International Journal of

# Men's Social and Community Health

**Review Article** 

# PATERNAL LEAVE AND FATHERS' MENTAL HEALTH: A RAPID LITERATURE REVIEW

Lloyd Frank Philpott, John Goodwin, Mohamad M. Saab

School of Nursing and Midwifery, Brookfield Health Sciences Complex, University College Cork, Cork, T12AK54, Republic of Ireland

Author for correspondence: Lloyd Frank Philpott: lloyd.philpott@ucc.ie

Submitted; 31 October 2021; Accepted: 14 March 2022; Published: 29 March 2022.

#### Abstract

**Background:** Several countries have introduced paternal leave policies in order to encourage and involve fathers in caregiving. Besides supporting fathers' involvement, paternal leave may have other consequences such as health improvements. Paternity leave could potentially improve mental health outcomes by reducing stress and anxiety associated with work–family conflict. It can be hypothesized that paternal leave has a positive effect on men's mental health; however, there have been no recent attempts to review the literature pertaining to such outcomes.

**Purpose:** The aim of this rapid review of the literature was to evaluate the evidence from studies that explored the effect of paternal leave on men's mental health.

**Design:** Rapid literature review

**Methods:** The review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Electronic databases CINAHL Plus with Full Text, Academic Search Complete, MEDLINE, APA PsycArticles, APA PsycInfo, Social Sciences Full Text (H.W. Wilson), SocINDEX with Full Text, and ERIC were searched for studies that met the inclusion criteria.

**Findings:** A total of 337 records were identified from the electronic database search. Nine studies met the inclusion criteria. The findings suggest that fathers experience mental health benefits as a result of availing of parental leave. The length of leave availed by fathers had an impact on their mental health, with longer duration of paternity leave associated with higher levels of mental well-being. Flexible leave impeded fathers from fully engaging in their paternal role or their employment duties.

**Conclusion:** The mental health benefits of parental leave usually associated with mothers are also extended to fathers, highlighting the importance of this statutory entitlement.

**Keywords:** fatherhood; mental health; paternal leave; rapid literature review

### INTRODUCTION

Historically, fathers took on the role of the "breadwinner" while mothers stayed at home and provided the bulk of childcare. However, in more recent times, more families are dual career, with

both mothers and fathers working; consequently, there are increasing expectations on men to do a greater share of childcare and housework.<sup>2</sup> Despite changing expectations, fathers have reported that they feel torn between their desire to take on a more

active fathering role while also providing for their families.<sup>3</sup> In order to encourage and involve men in caregiving, several countries have introduced paternal leave policies.<sup>4</sup> Paternal leave has been identified as one of the few policy tools available to governments to directly influence behavior among fathers.<sup>5,6</sup> Furthermore, the provision of paternal leave is one of the strongest public statements that societies can make to show that they value the care work of men.<sup>7</sup>

Several countries have developed comprehensive systems of paid leave for parents around childbirth.8 The majority of countries provide mothers with a statutory entitlement to paid maternity leave<sup>9</sup> and almost all employed women avail of maternity leave, at least in the period immediately before and/or after childbirth.10 However, for fathers the picture is very different. While many countries do not provide paid statutory leave for fathers, when men are entitled to leave, the uptake is generally much lower when compared to mothers (although it should be noted that this does vary considerably across countries).11 In most Organization for Economic Cooperation and Development (OECD) countries, fewer than 50 men per 100 live births claim publicly administered parental leave benefits.<sup>11</sup> In eight countries (Australia, Austria, Canada, The Czech Republic, France, Italy, Korea, and Poland), the rate is below 10 per 100 live births.<sup>11</sup> Paternal leave policies across countries are diverse and individual policies do not always fit neatly into classifications suitable for international comparison.8

Leave practices and behaviors are influenced by several factors including social norms, societal attitudes toward the roles of mothers and fathers, employer attitudes toward taking leave, and financial considerations.<sup>11</sup> For example, given that the period around childbirth is often a time of considerable stress on household budgets, many families may feel that they cannot afford to sacrifice the additional income associated with the father's use of leave.<sup>12</sup> However, gender has been found to be the single most important determinant of parental leave

allocation.<sup>13</sup> Despite the many factors influencing a family's decision around leave taking, evidence suggests that increased paternal involvement in the early years of childhood can have a significant impact on child development,13 while recognizing that both mothers and fathers have caring responsibilities contributes to a better work-life balance and gender equality in the labor market.14 Several studies have reported that fathers who take leave after the birth of their infant are more practically and emotionally involved in childcare.<sup>15</sup> Besides enhancing the potential for men in the sphere of caring duties and facilitating women in the sphere of paid employment, paternal leave may have other positive consequences, including mental health improvements among men.<sup>16</sup>

The transition to first time or subsequent fatherhood comprises a readjustment to a new self-image, formation of new family relationships, and adaptation to a new position in the social context is a complex one. 17 This transition has resulted in some fathers feeling inadequate and ill-equipped as they begin their journey.<sup>18</sup> This can negatively impact their mental health, leading to increased stress, anxiety, and depression. 12,17-21 Adverse paternal mental health outcomes represent a significant public health concern given the potential negative outcomes for fathers, their partner, and their infant.<sup>22</sup> While fatherhood can potentially increase the risk for adverse mental health outcomes, it also provides an opportunity to improve men's health as it constitutes a turning point and offers a structured opportunity to alter one's trajectory.<sup>23</sup> However, men's health experts highlight the need to have support structures in place and recommend a policy-centered focus to improve men's health.<sup>24,25</sup> It has been suggested that protected leave policies allow opportunities for bonding and to focus on the needs of the family, which may reduce stress and anxiety, and improve mental health.16 With reduced stress and anxiety, fathers may be less likely to engage in unhealthy behaviors like physical inactivity, unhealthy eating, and alcohol use, which are often considered maladaptive coping mechanisms related to elevated psychological distress.<sup>26</sup> Due to the potential increase in stress and anxiety associated with work-family conflict following the birth of an infant, it can be hypothesized that paternal leave has a positive effect on men's mental health.<sup>16</sup> However, to the best of the authors' knowledge, there have been no attempts to review the literature pertaining to such outcomes. A review of the literature is both timely and warranted in order to give a better understanding of the impact that paternal leave has on men's mental health. Therefore, the aim of this rapid review of the literature was to evaluate the evidence from studies that explored the effect of paternal leave on men's mental health. In particular, this review aimed to answer the following questions:

- 1. What are the characteristics (i.e., type and duration) of the leave available to fathers in the studies included in the review?
- 2. What is the effect of paternal leave on fathers' mental health?
- 3. Does the length of paternity leave (having more or less) have an influence on mental health outcomes among fathers?

Before considering the implications that leave policies have on paternal mental health, the authors acknowledge that the term "father" is diverse. The role of a father may be manifest in a multitude of ways including as the primary parent, as one of two primary parents, or as a secondary parent.<sup>27</sup> They may be biological, foster, adoptive, or stepfather.<sup>28</sup> Some infants have a single father or two parents who are both fathers.<sup>27</sup> Infants may also have both a biological, nonresident father and a stepfather.<sup>28</sup> Within these arrangements, fathers may be legal guardians of the child or not, resident or nonresident.<sup>27</sup> While we did not limit the types of fathers to be included in this review, all the fathers in the studies were biological resident fathers. For the purpose of this review, studies included investigated leave that fathers took around the birth of their infant and at any stage during their child's life.

#### **METHODS**

### Design

Rapid reviews are streamlined approaches to synthesizing evidence which can be used to inform decisions faced by decision-makers in healthcare.<sup>29</sup> The eight steps informing Knowledge to Action evidence summary approach were used in the current rapid review. These include: (1) needs assessment; (2) question development and refinement; (3) proposal development; (4) systematic literature search; (5) screening and selection of studies; (6) narrative synthesis of included studies with level of evidence assessment; (7) report production; and (8) ongoing follow-up and dialogue with knowledge users.<sup>29</sup>

# Systematic literature search

Electronic databases CINAHL Plus with Full Text, Academic Search Complete, MEDLINE, APA PsycArticles, APA PsycInfo, Social Sciences Full Text (H.W. Wilson), SocINDEX with Full Text, and ERIC were searched by reviewer MMS for studies published in English. No other database limits were used in order to maximize retrieval. The data search took place in July 2021. The following keywords were truncated as appropriate, combined using Boolean operators "OR" and "AND," and searched based on title or abstract: (Father\* OR dad\* OR men OR man OR male OR paternal OR paternity) AND ("paternity leave" OR "paternal leave" OR "parent\* leave" OR "family leave") AND ("mental health" OR "mental illness\*" OR psych\* OR well-being OR well-being OR "well-being" OR stress\* OR depress\* OR distress\* OR anxi\*).

# Screening and selection of studies

The search was transferred by reviewer MMS to Covidence online software and records were screened based on title and abstract by all three reviewers (LP, JG, MMS) against the review eligibility criteria in order to identify relevant studies (Table 1). The full texts of potentially relevant records were then obtained and screened further by the three reviews (LP, JG, MMS). Title, abstract,

and full-text screening decisions were blinded. Each record had to be screened twice for a final screening decision to be made. Screening conflicts between two reviewers were resolved by a third independent reviewer.

Study characteristics and key findings from the included studies were extracted by one reviewer (LP) and crosschecked by two reviewers (JG, MMS) under the following headings: author(s) year and country, study aim, study design, sample and setting, data collection methods, data collection instruments, outcomes measured, key findings, and level of evidence.

# Data synthesis and level of evidence assessment

Data from the included studies were synthesized using narrative synthesis which is the

method of choice for rapid reviews.<sup>29</sup> Given the various study designs included in the present review, mixed-method narrative synthesis, particularly convergent integrated synthesis was conducted.<sup>30</sup> This involved "qualitizing" or transforming some statistical data into narrative descriptions which were then grouped thematically based on similarity in meaning to produce a set of integrated findings. Findings were then presented according to the current review questions.

The level of evidence in each of the included studies was assessed using the Scottish Intercollegiate Guidelines Network's (SIGN) level of evidence criteria ranging from 1++ for high-quality meta-analyses, systematic reviews of randomized controlled trials (RCTs), or RCTs with a very low risk of bias to 4 for expert opinion.<sup>31</sup>

TABLE 1. Study Eligibility Criteria and Associated Search Terms.

PICOS framework	Inclusion criteria	Exclusion criteria	Search terms
Population	<ul> <li>Fathers of any age</li> <li>Parents where results from fathers can be isolated</li> </ul>	<ul><li> Men who are not fathers</li><li> Mothers</li><li> Parents where results from fathers cannot be isolated</li></ul>	Father* OR dad* OR men OR man OR male OR paternal OR paternity
Intervention(s)	Paternity leave	<ul> <li>Maternity leave</li> <li>Parental leave where results relevant to paternity leave cannot be isolated</li> <li>Postpartum period with no mention of paternity leave</li> </ul>	"Paternity leave" OR "paternal leave" OR "parent* leave" OR "family leave"
Comparison	Studies with or without comparators	N/A	N/A
Outcome(s)	Any mental health and mental well-being outcomes (e.g., anxiety, depression, stress, distress, and/or any other mental health disease[s])	Physical health     General health where results relating to mental health cannot be isolated	"Mental health" OR "mental illness*" OR psych* OR wellbeing OR well-being OR "well being" OR stress* OR depress* OR distress* OR anxi*
Study design	Primary research using any empirical design (e.g., qualitative, quantitative, descriptive, and experimental studies)	Literature reviews, theoretical papers, conference abstracts, editorials, theses, and dissertations	N/A

### **RESULTS**

# Study selection

A total of 337 records were identified from the electronic database search. Following deletion of duplicates, 172 records were screened based on title and abstract and 147 irrelevant records were excluded. The full texts of the remaining 25 records were obtained and screened and 16 records were excluded, primarily due to wrong outcome reporting (n = 8). Therefore, a total of nine studies were included in this review. Study identification, screening, and selection processes are illustrated in Figure 1.

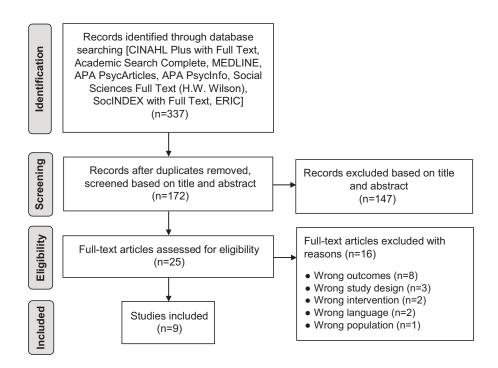
# Study characteristics and level of evidence

Almost half of the studies were conducted either in the United States of America (USA) (n = 2)<sup>16,32</sup> or Sweden (n = 2)<sup>33,34</sup> and used either a cross-sectional (n = 3)<sup>32,35,36</sup> or qualitative (n = 3)<sup>34,37,38</sup> study design. All but one study<sup>32</sup> were conducted in the community. Sample size ranged widely from  $11^{37}$  to 6,690 participants.<sup>16</sup> A number of instruments were used

across the reviewed studies. The most used instrument, however, was Edinburg Postnatal Depression Scale (n = 3). $^{34,36,39}$  The full study characteristics are presented in Table 2. Eight of the nine studies scored 3 on the SIGN<sup>31</sup> level of evidence criteria, indicating that these studies were descriptive and nonanalytic. The study by Lee et al., $^{16}$  however, scored 2, which corresponds to cohort studies with a high risk of bias.

# Type of leave and duration of available leave

Paternal leave systems across countries are diverse and the policies of individual countries do not always fit precisely into classifications suitable for comparison (Table 3). In this review, the main differences were related to the type of leave (paternity leave, parental leave, family), duration of leave available, and the time frame when the leave was taken. Studies reported on paternity leave (n = 3),  $^{35,36,39}$  parental leave (n = 5) $^{32,33,37-39}$ , and family leave (n = 1).  $^{16}$ 



**FIGURE 1.** Study identification, screening, and selection processes.

**TABLE 2.** Study Characteristics (n = 9).

TABLE 2. St	ddy Characteristics (ii – 7).
Country	USA $(n = 2)$
	Sweden $(n = 2)$
	Asia-Pacific (n = 1)
	Ireland $(n = 1)$
	Japan (n = 1)
	Korea $(n = 1)$
	Norway (n = 1)
Study design	Cross-sectional (n = 3)
	Qualitative (n = 3)
	Cohort (n = 1)
	Longitudinal (n = 1)
	Quasi-experimental (n = 1)
Sample size (min-max)	11–6,690
Settings	Community (n = 8)
	Child health centers $(n = 1)$
Instruments*	Edinburg Postnatal Depression Scale (n = 3)
	Interviews (n = 2)
	Beck Depression Inventory (n = 1)
	Centre for Epidemiologic Studies Depression Scale (n = 1)
	Gotland Male Depression Scale (n = 1)
	Kessler-6 $(n = 1)$
	Parental Leave Inventory (n = 1)
	Researcher-developed questionnaire (n = 1)
	State-Trait Anxiety Inventory (n = 1)
	Swedish Parenthood Stress Questionnaire (n = 1)
-	

<sup>\*</sup>Two studies used more than one instrument; n corresponds to the number of times an instrument was used.

Paternity leave is an employment-protected leave of absence for employed fathers soon after the birth of a child.<sup>8</sup> In general, the duration of paternity leave is much shorter than maternity leave, highlighting the traditional central role of mothers in caring.<sup>8</sup> Despite ongoing discourses around the importance of the duration of paternity leave, the studies included in the review did not identify the

duration of paternity leave available. Furthermore, none of the studies in the review reported on the period in the child's life when paternity leave was taken.

Another type of paternal leave taken when children are young is called "parental leave." Parental leave is an employment-protected leave of absence for employed parents, which is often additional to specific maternity and paternity leave periods.8 It is known that the duration of parental leave is much longer than paternity leave.8 In this review, the duration of parental leave available to fathers ranged from 2 months to 390 days, highlighting stark differences between countries.<sup>33</sup> Nontransferable leave was introduced to encourage fathers to take leave and thus increase their involvement in childcare. In general, some part of each parental leave scheme consists of reserved, nontransferable days for each parent, with individual families choosing how they take the nontransferable leave days.33

The third type of leave identified in the review was family leave (n = 1).<sup>16</sup> Lee et al.<sup>16</sup> reported on a family leave policy that was available to fathers living in California. Lee et al. 16 in their study highlighted that the USA is the only high-income country without a national paid leave policy for parents, highlighting a stark contrast to their European counterparts where paid leave is standard; however, some states such as California have implemented a leave policy. According to Lee et al., 16 fathers are entitled to 6 weeks of partially paid leave. Lee et al.<sup>16</sup> did not report on the period in the child's life when the leave was taken, or the duration of leave taken; as a consequence, conclusions are difficult to draw. In the only other study from the USA, Feldman et al.<sup>32</sup> reported that fathers were entitled to unpaid leave of up to 12 weeks within the first year of childbirth; however, it was only available to employees holding a full-time position in a workplace employing 50 persons or more which indicates an inequality for those working in smaller companies. While it has also been suggested that fathers take annual leave instead of, or as well as, paternity/parental/ family leave, particularly where that is not available

IABLE 5. 1ype	ot Leave, Duratic	IABLE 5. Type of Leave, Duration of Leave Available, Time Point When Leave was Taken, and Duration of Leave Taken	was laken, and Duration of Le	ave laken.
Study/Country	Type of leave	Duration of leave available	At what period in the child's life was leave taken?	Duration of leave taken
Chan et al. <sup>35</sup> Asia-Pacific	Paternity leave	Study was undertaken across several Asian countries, no information provided regarding leave in the individual countries	Not reported	No reported
Lee et al. <sup>16</sup> USA	Family leave	Up to 6 weeks of partially paid leave	Not reported	Not reported
Philpott & Corcoran <sup>36</sup> Ireland	Paternity leave	Not reported	Not reported	Not reported
Lidbeck et al. <sup>33</sup> Sweden	Parental leave	Part of the leave is reserved for 90 nontransferable days for each parent of the 480 benefit days. Families choose how they take the leave outside the nontransferable days	6 months old (T1) and follow-up at 18 months old (T2)	63 fathers took an equal share of leave (between 192 and 288 days); 43 fathers took an unequal share of leave (less than 192 days)
Feldman et al. <sup>32</sup> USA	Parental leave (in paper title); Paternity leave (in main body)	Unpaid leave of up to 12 weeks within the first year of childbirth to employees holding a full-time position in a workplace employing 50 persons or more	Between the 3rd and 5th postnatal month	Average leave taken 6.5 days
Byun & Won <sup>37</sup> Korea	Parental leave	Each parent is eligible for up to 1 year of leave. Parents cannot take leave in parallel (at the same time) but can take it in turn. Available upon request for working parent with children aged under 6 years, or second grade, or lower in elementary school	Not reported	l year
Nishigori et al. <sup>39</sup> Japan	Paternity leave	Not reported	Not reported	Not reported
Brandth & Kvande <sup>38</sup> Norway	Parental leave	Father's quota is 10 weeks of a total parental leave period of 49 weeks. Most of the parental leave weeks are available to both mothers and fathers	Not reported	Minimum of 10 weeks

TABLE 3. Continued	nued			
Study/Country	Type of leave	Duration of leave available	At what period in the child's life was leave taken?	Duration of leave taken
		In 2007, the father's quota was made more flexible. One type of flexibility is part-time leave combined with part-time work, which means that the leave weeks can be distributed over a longer period of time until the child is 3 years old. The second form of flexibility is "deferred" leave, which means that all or part of the father's quota may be split into separate blocks of time. These two forms of flexible leave may also be combined so that, for instance, periods of full-time leave may alternate with periods of part-time leave may alternative to flexible leave is continuous leave on a full-time basis Fathers' part-time leave may be concurrent with mothers' part-time leave and flexible working hours; and a block of the father's quota time may be taken together with the mother's holidays from work		
Edhborg et al. <sup>34</sup> Sweden	Parental leave	Total of 480 days of which 2 months are assigned only to fathers	Up to the first postnatal year	Most of the fathers returned to work after the 10 days' parental leave

or is low paid,<sup>40</sup> in this review no studies reported on fathers taking annual leave.

# The effect of paternity leave on fathers' mental health

Three quantitative and one qualitative study reported on the effect of paternity leave on fathers' mental health. Philpott and Corcoran<sup>36</sup> reported that fathers who did not take paternal leave had a prevalence of depression of 19.4% compared to 4.2% for fathers who took leave; however, this was not statistically significant (p = 0.025). Similarly, Nishigori et al.<sup>39</sup> reported no statistically significant differences between fathers who took paternity leave and those who did not (p = 0.036). It should be noted that, although statistical significance was not reached, there could be clinical implications; however, further research is warranted to address this deficit. In relation to stress, Lidbeck et al.33 reported that fathers who shared parental leave equally (Mean [M] = 2.23, Standard Deviation [SD] = 0.40) were slightly less affected by perceived parenting stress than those who shared unequally (M = 2.27, SD = 0.45) as per their Swedish Parenthood Stress Ouestionnaire (SPSQ) score. On the "Incompetence" subscale of the SPSQ, fathers who shared parental leave equally (M = 1.81, SD = 0.48) reported lower perceived parenting stress than fathers who shared unequally (M = 1.89, SD = 0.50). On the subscale "health problems," division of parental leave was associated with lower perceived parenting stress for equally sharing fathers (M = 2.49, SD = 0.66) compared to nonequally sharing fathers (M = 2.53, SD = 0.60), although statistical significance was reached only in the adjusted model.

Byun and Won<sup>37</sup> in their qualitative study reported that taking leave was burdensome for fathers as it was perceived as bad for career progression. Fathers in the study reported concerns about management's treatment within their workplace as a result of taking leave, which caused fathers to feel mentally drained<sup>37</sup> (Table 4). Given that this study was conducted in Korea, there may have been certain cultural influences; further qualitative

research is warranted in this area to identify why it is perceived that career progression is negatively impacted by taking paternity leave.

# The length and type of paternity leave (having more or less) and mental health outcomes

Five studies did not report the length of time that fathers took for paternity leave. 16,34-36,39 For studies that did report the length of paternity leave (n = 4), two studies were quantitative and two were qualitative. The amount of time taken ranged from 6.5 days<sup>32</sup> to 1 year<sup>37</sup> (Table 3), highlighting differences across countries and cultures.32,37 One of the quantitative studies by Lidbeck et al.33 reported that the total SPSO mean scores for fathers with equal sharing did not change between T1 (6 months after childbirth) (M = 2.23, SD = 0.40) and T2 (18 months after childbirth) (M = 2.23, SD = 0.47); however, SPSQ scores for fathers with nonequal sharing rose significantly from M = 2.27, SD = 0.45 to M = 2.46, SD = 0.47 (p = 0.005); this highlights the importance of leave for fathers' mental health in the later post-natal period. A significant association was found between division of parental leave and change in perceived overall parenting stress, and this association remained significant when adjusted for potentially confounding factors. Fathers who shared parental leave equally were less affected by perceived parenting stress than those who shared unequally (adjusted B -0.20; 95% Confidence Interval [CI] -0.33 to -0.06), which again suggests the importance of leave for paternal perinatal mental health. Similar findings were reported by Feldman et al.<sup>32</sup> who found that the relationship between a father's state anxiety and shorter paternity leaves approached the level of significance (r = -0.27, p = 0.057).

In their qualitative study, Brandth and Kvande<sup>38</sup> reported that fathers who took part-time leave were dissatisfied with their choice. They felt that the part-time father's quota did not enable them to combine childcare and work, and that fully committing to both roles was not possible. Instead, it was reported that fathers felt that they only half-commit to each

**TABLE 4.** Data Extraction Table.

	Aim	Design	Sample and setting	Data collection process	Instrument	Intervention	List of relevant outcomes (p values)	Key findings*	Level of evidence
"To investigate the prevalence of six aspects of father involvement in delivery and childrare, and to explore their individual associations with IPV against women and paternal health in an Asia-Pacific context." (p. 1)	of nent l l tith mmen fic	Cross-sectional study	6,184 fathers Community sample across nine research sites located in six developing countries in the Asia Pacific-region.	Standardized population- based household survey.	Centre for Epidemiologic Studies Depression Scale (20-item), a self-report scale for assessing depression in the general population.	N/A	Depression (0.25) Suicidal ideation (0.97)	Q1. Not reported Q2. The relationship between taking paternity leave and depression or suicidal ideation was not statistically significant. Q3. Not reported Q4. Overall, 49.5% took leave. Percentages varied between countries, with China lowest at 37.6%, and Indonesia highest at 67.5%. No statistically significant relationship between parental leave and life satisfaction (0.04) and general health (0.02).	ю.
"To examine the effects of California's PFL policy on parent health." (p. 2)	he nt	A quasi- experimental study	6,690 parents: 53% female; 47% male. Community sample	Data from the 1993–2017 waves of is a longitudinal nationwide cohort study (the Panel Study of Income Dynamics).	Kessler-6 (range 0–24), a screening instrument for nonspecific psychological distress, with higher scores indicating greater risk of mental illness.	N/A	Psychological distress (0.36)	Q1. Not reported. Q2. No statistically significant change in paternal psychological distress. Q3. Not reported. Q4. Paid family leave reduced maternal psychological distress with no statistically significant change in paternal psychological distress (p < 0.01). Fathers had greater reductions in the probability of being obese (p = 0.04) and any alcohol consumption (p < 0.01) compared with mothers.	2
"To investigate the prevalence of paternal postnatal depression, and to examine associations with a range of demographic and clinical factors." (p. 121)	te e of natal nd to of of and to of sand and sand rs."	Cross-sectional study	Community sample	Eligible fathers were chosen from public health records using simple random sampling and sent a postal questionnaire.	Researcher- developed questionnaire comprising self- report questions relating to mental health, in addition to the Edinburgh Postnatal Depression Scale (EPDS): 10 items. Scores range from 0-30.	N/A	Depression (0.025).	Q1. Not reported Q2. Fathers who did not take paternal leave had a prevalence of depression of 19.4% compared to 4.2% for fathers who took leave; however, this was not statistically significant. Q3. Not reported Q4. At the time of the study paternity leave was not mandatory but at the discretion of the employer.	м

ю -
Q1. Participants were divided into two groups based on how they planned to share the parental leave: equal sharing (each parent taking 40–60% of the time) and nonequal sharing (mothers taking more than 60% of the time on parental leave).  Q2. Total SPSQ mean scores for fathers with monequal sharing rose from 2.27 to 2.46.  Q3. A significant association was found between division of parental leave and change in perceived overall parenting stress (Total SPSQ), and this association remained significant when adjusted for potentially confounding factors. Fathers who shared parental leave equally confounding factors. Fathers who shared unequally (adjusted B -0.20; 95% CI-0.33 to -0.06). On the subscale Incompetence, fathers who shared unequally. On the subscale health problems, division of parental leave was associated with lower perceived parenting stress than dathers who shared unequally. On the subscale health problems, division of parental leave was associated with lower perceived parenting stress for equally sharing fathers, although significance was reached only in the adjusted model (F(3,103) = 3.160; p = 0.017).  Q4. Parents' choices regarding parential leave division were associated with perceived parential leave division were associated with perceived parenting stress among fathers, but not among mothers.
Division of parental leave: Scores on SPSQ Equal sharing (0.014) Model adjusted for socio- demographic variables: Scores on SPSQ Equal sharing (0.005)
₹ Z
Swedish Parenthood Stress Questionnaire (SPSQ) comprising 34 items on five subscales: incompetence; role restriction; Social isolation; spouse relationship problems; health problems.
Fathers completed a web-based survey or a postal questionnaire when the child was 6 months old (T1). The follow-up survey was when their child was 18 months old (T2).
sharing fathers: equal sharing fathers (n = 63) and nonequal sharing fathers (n = 43)  Child health centers in the southwestern part of Sweden
Study study study
"To explore associations between division of parental leave and perceived parenting stress in mothers and fathers of infants." (p. 3)
Sweden Sweden

Level of evidence

Q1. Fathers took an average of 6.5 Q2. Taking leave was burdensome Q4. Some fathers utilized parental treatment within their workplace as a result of taking leave, which range = 0-14 days, median = 6.5support, F(5, 42) = 3.81, p < 0.05, uniquely predictive of the length associated with fathers' reduced resulted fathers feeling mentally 3.87, p < 0.05, better employer's would be known throughout the Q2. Shorter paternity leave was and higher family salience, F(7, Q4. A short parental leave was preoccupation with their infant. leave as a "sort of refuge" from stay away from a team director. their "cruel organization" or to Fathers regretted taking leave, days parental leave (SD = 4.49, = 3.75, p < 0.05, higher marital reaction to childbirth, F(2, 45) 40) = 4.03, p < 0.05 were each concerns about management's anxiety which approached the planned pregnancy, F(1, 46) = for fathers as it was perceived and voiced concerns that they as bad for career progression. Fathers in the study reported organization for taking leave. associated with father's state Q3. Results indicate that a Q1.4 months to 1 year level of significance. of paternity leave. Q3. Not reported Key findings" drained days). Experiences of taking parental paternity leave Fathers' family paternity leave paternity leave 0.29, p < 0.05) (r = 0.29, p <(r = 0.27, p =development state anxiety (fathers; r= was related Knowledge with longer correlated (p values) outcomes of infant to longer salience Fathers' relevant List of 0.05Intervention description N/A N/A address the parent's State-Trait Anxiety range from 20 to 80. attitudes, and leavetrait anxiety Scores Inventory was used parent's depressive tem questionnaire. range from 0 to 63. symptoms. Scores (20 items each) to five sections that from a systemic taking behavior separate scales assess state and Parental Leave to measure the Inventory, 108 Organized in measure uses This 40-item Instrument experiences, perspective. Depression inventory. The Beck The interviews of while two fathers Data collection Interviews were carried out twice nine fathers took library or a café met out of work as they were on parental leave allowed being the interviews 30 minutes to questionnaire at the time of requesting background 2 hours. Ten interviewees however, one containing a information such as in a nstruments Interviews lasted from cover sheet and survey Postnatal Sample and setting Community sample Community setting n = 11 fathers 98 parents Qualitative Grounded sectional Design theory Crossstudy mother's and father's 'factors that may be childbirth." (p. 462) associated with the length of maternity leave and with the following the first through a culturegenuine reality of work adaptation fathers' parental "To address the leave in Korea sensitive lens." 
 TABLE 4.
 Continued
 and paternity To examine Aim Feldman et al.32 Byun & Won37 year, country Author(s), Korea USA

3

	м	м
	Q1. Not reported Q2. No statistically significant differences in EPDS-J scores of ≥8 between fathers who took paternity leave and those who did not take paternity leave (p > 0.05). Q3. Not reported Q4. Only reported the impact of paternity leave at 6 months, not reported at 1 month.	Q1. The length of the father's quota is 10 weeks of a total parental leave period of 49 weeks. The part of the parental leave that may be shared between parents is mostly taken by mothers.  In 2007, the father's quota was made more flexible to include either part-time leave combined with part-time work or "deferred" leave, which means that all or part of the father's quota may be split into separate blocks of time. These two forms of flexible leave may alternate with periods of part-time leave may alternate with periods of part-time leave. The alternative to flexible leave. The alternative to flexible leave. The alternative to flexible leave. The alternative to a full-time leave.
	No paternity leave, p-value 0.67; AOR 0.36	Boundary setting character of leave. Fathers' experiences of managing care work. Type of fathering encouraged by flexible leave.
	<del>V</del> /Z	₹/Z
	Japanese version of the Edinburgh Postnatal Depression Scale (EPDS-J). It consists of 10 items. Score ranging from 0 to 30.	Semi-structured interviews on parental leave choices, the employment and occupation of both the mother and father, fathering ideals and practices, and father—child relations
interviewee expressed psychological discomfort and allowed just note-taking.	Ouestionnaire delivered by mail to participants at I and 6 months post-delivery.	Semi-structured interviews which lasted from 1–2 hours, most fathers were interviewed in their homes.
	n = 1,023	n = 20 fathers Community setting
	Cohort study	Qualitative study
	"To report paternal postpartum depression symptoms at one and 6 months postpartum, in participants enrolled in a large-scale birth cohort prospective study, the Japan Environment & Children's Study (JECS)." (p. 2798)	"To increase insight into how flexibility as a design element of the earmarked father's quota has affected fathering." (p. 287)
	Nishigori et al. <sup>39</sup> Japan	Brandth & Kvande <sup>38</sup> Norway

Level of evidence		m
Key findings*	Q2. Part-time leave appeared to cause the biggest problems, as fathers who took part-time leave were the ones who were dissatisfied with their choice.  They felt that the part-time father's quota did not enable them to combine childcare and work.  Q3. Length of leave wasn't discussed; however, it showed that taking flexible leave was stressful.  Q4. The parental leave that may be shared between parents is mostly taken by mothers.  Many fathers on a part-time father's quota said that it felt as if they were working full-time, while additionally having to care for their infant. The article explores their experiences with flexible organization of the leave, which provides them with a menu of choices, and considers how it affects their caring. Findings show that it allows work to invade care, produces a double stress and promotes half-way fathering. Flexible use of the father's quota tends to confirm fathers as secondary carers instead of empowering them as carers.	Q1. Most of the fathers were working after the 10 days' parental leave. Q2. Fathers expressed feelings of guilt toward their partners, who took more responsibility for the infant during the nights, since most of the fathers were working after the 10 days' parental leave related to child birth. Q3. Not reported
List of relevant outcomes (p values)		EPDS score, Median (range), N = 18 (1 missing) 12.5 (5-27). GMDS score, Median (range) 13 (3-32).
Intervention description		Fathers with signs of depression from 3–6 months postpartum were randomized, either to an intervention group and offered nondirective counseling
Instrument		Gotland Male Depression Scale (GMDS). Edinburgh Postnatal Depression scale (EPDS).
Data collection process		Participants were selected purposely, only fathers with depressive symptoms who had given consent to be part of an intervention study, from the larger, quantitative study were included.
Sample and setting		n = 19
Design		A Qualitative descriptive study
Aim		"To describe fathers' experiences of the first year postpartum, when they showed depressive symptoms 3 to 6 months postpartum." (p. 1)
Author(s), year, country		Edhborg et al. 34 Sweden

	· · ·	COLC 10	
	I he quantitative	(N = 2/0), or	Q4. Fathers missed their work and
	study included	to a control	workmates when they were on
	all men in	group and	parental leave, and the infant and
	Stockholm who	offered a self-	family when they were working.
	had become	help book	Several of the fathers had shared
	fathers in	based on the	or planned to share the parental
	November-	Internet.	leave equally with their partners.
	December 2010		However, they did not find it
	and May-June		easy to be an equal parent and
	2011. These		expressed feelings of being
	new fathers		excluded as a father and not seen
	were sent		by society as having the same
	questionnaires		value as the mother.
	measuring		Even those fathers who had shared
	depressive		the parental leave equally felt that
	symptoms 3		the mothers' opinions were seen
	to 4 months		as more important than the fathers
	postpartum, and		by the health care personnel and
	3,656		the society.
	fathers		
	returned the		
	questionnaires.		
	Of these fathers.		
	573		
	(15.7%) were		
	identified with		
	self-reported		
	depressive		
	Symptoms,		
	3–6 months		
	postpartum.		
* Key findings extracted based on the following review questions.  QI. What is the length of paternity leave in the included study?  Q2. What is the effect of paternity leave on fathers' mental health?  Q3. Does the length of paternity leave (having more or less) have an influence on mental health outcomes?  Q4. Any other relevant findings?	ons. ? alth? ave an influence on mental health outc	comes?	

role, which prevented them from developing a routine, which became stressful for them; such findings should be considered in countries where leave policies are being developed. In Edhborg et al.'s<sup>34</sup> qualitative study, most of the fathers returned to work after the 10-day parental leave which resulted in feelings of not being able to perform as they were expected to perform both at work and at home. Due to returning to work soon after the birth of their infant, fathers experienced stress from their workplace, as well as parental stress at home. Fathers also expressed feelings of guilt toward their partners, who took more responsibility for the infant during the nights, because the fathers were working after the 10-day parental leave<sup>34</sup> (Table 4).

#### DISCUSSION

This rapid review of the literature evaluated the evidence from studies that explored the effect of paternal leave on men's mental health. In this review, three types of leave were identified, namely, paternity leave, parental leave, and family leave. Multiple research designs were used in the included studies and many different measurement instruments were used to identify adverse mental health making synthesis of the data difficult, across and within measurement instruments. The length of leave taken by fathers had an impact on their mental health, with longer duration of paternity leave associated with higher levels of mental well-being. It is well-known that taking maternal leave results in improved well-being for mothers, 41,42 with longer leave associated with more positive mental health outcomes. 43-45 Rather than addressing fathers' mental health, studies focusing on paternal leave tend to focus on how the duration of leave can increase fathers' involvement in caring and providing for children. 46,47 Findings from the current review indicate that the mental health benefits of parental leave usually associated with mothers are also extended to fathers, highlighting the importance of this statutory entitlement, and emphasizing the need for leave to be of appropriate duration.

It has been reported, that extended paternal leave could result in fears around career progression. which in turn impacted fathers' mental health.<sup>39,48</sup> However, little research has been conducted on extended paternity leave, which may owe to traditional gender norms where females are more likely to avail of extended childcare leave. 8 Burnett et al. 48 discussed gender expectations, acknowledging the socially constructed "man as provider" stereotype, which may serve as a barrier to males availing of longer periods of paternal leave. However, we are currently living in a period of transformation where it is recommended that traditional gender stereotypes are challenged.<sup>49,50</sup> Given the findings of the current review, there may be a need to address societal gender-based barriers to availing of paternal leave entitlements.

Similarly, flexible parental leave was not positively perceived by fathers.<sup>38</sup> Indeed, flexible paternal leave impeded fathers from fully engaging in their paternal role or their employment duties, resulting in an unwelcome compromise. This form of leave has been introduced in several countries, with the aim of providing fathers with more choice and personal autonomy about how they take statutory leave from their employment. 51-53 Despite this apparent father-centric approach to leave, officially sanctioned absence from work can actually put pressure on fathers, who feel they need to continue to work from home while engaging in childcare.<sup>54</sup> Similar to the problems identified with extended leave, traditional masculine "norms" may preclude fathers from fully taking advantage of leave. This raises the question regarding how organizations communicate paternal leave entitlements to their employees and suggests a culture where paternal leave may be officially sanctioned but not socially accepted.

Unequal sharing of paternal leave impacted on fathers' mental health and well-being.<sup>33</sup> For instance, fathers who did not share leave equally experienced higher levels of stress.<sup>33</sup> Although statistically significant changes in depressive symptoms were not observed, clinical significance was not considered. Furthermore, there is a tendency

for fathers to minimize the impact of depression on their well-being, instead choosing to communicate about depressive symptoms in the context of stress.<sup>55</sup> This suggests that fathers may experience lower levels of well-being than what has been reported in the literature.<sup>56</sup> Establishing more equitable sharing of paternal leave within the father/mother dyad may lead to increased well-being among fathers, especially given modern fathers' wish to become more active in caring for and developing a bond with their children.<sup>46,47,57</sup> Indeed, such cultural shifts may also open avenues for mothers to return to employment and advance their careers during times traditionally associated with perinatal childcare commitments.<sup>49</sup>

#### STRENGTHS AND LIMITATIONS

This is the first recent review to investigate the impact that paternal leave has on men's mental health. A rigorous approach following various guidelines, frameworks, and standardized checklists guided the review of the literature including the eight steps informing Knowledge to Action evidence summary approach,<sup>29</sup> PICOS framework, and the SIGNlevel of evidence criteria.<sup>31</sup> The included research literature was identified following a thorough search of electronic databases using predetermined questions.

The results of the review should be interpreted in light of its limitations. This includes potential language bias toward English-only publications and publication bias where gray literature such as unpublished research and conference proceedings was excluded. Of note, assessing the quality of the studies is not a requirement of rapid literature reviews. However, a critical appraisal of the methodological quality of the included studies could have helped explore various sources of bias. Furthermore, the paternal leave systems across countries included in the review were diverse and the policies of individual countries do not always fit precisely into classifications suitable for comparison. This made it difficult to synthesize the findings as there were

cultural differences between the study setting and that of the reviewers. As we only included the characteristics (i.e., type and duration) of the leave available to fathers in the studies included in the review, we did not examine the literature to see the characteristics of the leave available to fathers globally. Finally, the majority of the studies were descriptive, cross-sectional and relied heavily on self-reported outcomes which introduces further bias.

#### **FUTURE RESEARCH**

Currently, there is a paucity of research addressing the impact that paternal leave has on fathers' mental health. Furthermore, most of the fathers in the studies reviewed were married, employed, highly educated, and lived in high-income countries. Research with minority group fathers (separated/divorced, unemployed, ethnic minorities, and sexual and gender minorities) is needed as these groups may be at increased risk of mental distress. Undertaking research with minority groups and comparing their mental health and risk factors with fathers from majority groups will help establish if they are of greater risk of adverse mental health and more susceptible to specific stressors around taking leave.

The existing research assessing paternal mental health and paternal has been predominately quantitative. Fewer studies have explored men's experiences of paternal leave and its impact on their mental health. More qualitative research is needed to examine the views and experiences of first-time and subsequent fathers concerning paternal leave and their mental health, their perceptions of what makes mental health resources accessible and acceptable, the type of leave support fathers want, how this is provided, and when would be the optimal time to offer leave support.

#### **CONCLUSION**

The findings suggest that the mental health benefits of parental leave usually associated with

mothers are also extended to fathers, highlighting the importance of this statutory entitlement. The length of leave taken by fathers had an impact on their mental health, with longer duration of paternity leave associated with higher levels of mental well-being thus highlighting the need for leave to be of appropriate duration. However, there was also evidence from the review to suggest that much extended paternal leave resulted in fears around career progression, which in turn impacted fathers' mental health. Finally, flexible paternal leave has been introduced in several countries, with the aim of providing fathers with more choice and personal autonomy about how they take leave from their employment. However, the findings suggest that flexible leave impeded fathers from fully engaging in their paternal role or their employment duties. Fathers felt the need to continue to work from home while engaging in childcare which resulted in an unwelcome compromise.

#### **CONFLICT OF INTEREST**

There is no conflict of interest.

### **FUNDING**

No funding was received for this research.

### ETHICAL STATEMENT

Ethical approval was not required for this review.

#### REFERENCES

- Chesley N, Flood S. Signs of change? At-home and breadwinner parents' housework and child-care time. J Marriage Fam. 2017;79(2):511–34. http:// dx.doi.org/10.1111/jomf.12376
- Harrington B. The new dad: The career-caregiving conundrum. In: Grau Grau M, las Heras Maestro M, Riley Bowles H, editors. Engaged fatherhood for men, families and gender equality, healthcare,

- social policy, and work perspectives. Springer; 2021. p. 197–213.
- Pfitzner N, Humphreys C, Hegarty K. Engaging men as fathers: How gender influences men's involvement in Australian family health services. J Fam Issues. 2018;39(16):3956–85. http://dx.doi. org/10.1177/0192513X18802329
- Duvander A-Z, Trude L, Synøve N. Parental leave policies and continued childbearing in Iceland, Norway, and Sweden. Demogr Res 2019;40:1501– 28. http://dx.doi.org/10.4054/DemRes.2019.40.51
- Organization for Economic Cooperation and Development (OECD). Doing better for families. Paris: OECD Publishing; 2011.
- Radcliffe LS, Cassell C. Flexible working, work– family conflict, and maternal gatekeeping: The daily experiences of dual-earner couples. J Occup Organ Psychol. 2015;88(4):835–55. http://dx.doi. org/10.1111/joop.12100
- Ugreninov E. Can family policy reduce mothers' sick leave absence? A causal analysis of the Norwegian paternity leave reform. J Fam Econ Issues. 2013;34(4):435–46. http://dx.doi.org/10.1007/s10834-012-9344-x
- 8. Organization for Economic Cooperation and Development. Parental leave systems [Internet]. [cited 2021 Aug 12]. Available from: file:///D:/Parental%20leave%20systems%20paternity%20 OECD.pdf
- Adema WC, Clarke A, Frey V. Paid parental leave: Lessons from OECD countries and selected U.S. states. OECD Social, Employment and Migration Working Papers, No. 172. Paris: OECD Publishing; 2015.
- Moss P. International review of leave policies and research [Internet]. [cited 2021 Aug 11].
   Available from: http://www.leavenetwork.org/ lp\_and\_r\_reports/
- Organization for Economic Cooperation and Development. Background brief on fathers' leave and its use [Internet]. 2016. Available from: https:// www.oecd.org/els/family/Backgrounder-fathersuse-of-leave.pdf
- 12. Philpott LF, Leahy-Warren P, FitzGerald S, et al. Stress in fathers in the perinatal period: A systematic review. Midwifery. 2017;55:113–27. http://dx.doi.org/10.1016/j.midw.2017.09.016

- Rollè L, Gullotta G, Trombetta T, et al. Father involvement and cognitive development in early and middle childhood: A systematic review. Front Psychol, 2019;10:2405. http://dx.doi.org/10.3389/ fpsyg.2019.02405
- Chung H, van der Lippe T. Flexible working, worklife balance, and gender equality: Introduction. Soc Indic Res. 2020;151:365–81. http://dx.doi.org/10.1007/s11205-018-2025-x
- 15. Evertsson M, Katarina B, Jeylan E. Fathers on call? A study on the sharing of care work between parents in Sweden. Demogr Res. 2018;39:33–60. http://dx.doi.org/10.4054/DemRes.2018.39.2
- Lee BC, Modrek S, White JS, et al. The effect of California's paid family leave policy on parent health: A quasi-experimental study. Soc Sci Med. 2020;251:112915. http://dx.doi.org/10.1016/j. socscimed.2020.112915
- 17. Philpott LF, Savage E, FitzGerald S, et al. Anxiety in fathers in the perinatal period: A systematic review. Midwifery. 2019;76:54–101. http://dx.doi.org/10.1016/j.midw.2019.05.013
- 18. Earle S, Hadley R, Men's views and experiences of infant feeding: A qualitative systematic review. Matern Child Nutr. 2018;14(3):e12586. http://dx.doi.org/10.1111/mcn.12586
- 19. Leach LS, Poyser C, Cooklin AR, et al. Prevalence and course of anxiety disorders (and symptom levels) in men across the perinatal period: A systematic review. J Affect Disord. 2016;190:675–86. http://dx.doi.org/10.1016/j.jad.2015.09.063
- 20. Philpott LF, Leahy–Warren P, Savage E. Paternal perinatal depression: A narrative review. Int J Mens Soc Community Health. 2020;3(1):1–15. http://dx.doi.org/10.22374/ijmsch.v3i1.22
- Cameron EE, Sedov ID, Tomfohr-Madsen LM. Prevalence of paternal depression in pregnancy and the postpartum: An updated meta-analysis. J Affect Disord. 2016;206:189–203. http://dx.doi. org/10.1016/j.jad.2016.07.044
- 22. Fisher SD. Paternal mental health: Why is it relevant? Am J Lifestyle Med. 2017; 11(3):200–11. http://dx.doi.org/10.1177/155982761 6629895
- 23. Torche F, Rauf T. The transition to fatherhood and the health of men. J Marriage Fam. 2010;83(2):446–65. http://dx.doi.org/10.1111/jomf.12732

- Richardson N, Carroll P. It's not rocket science: The case from Ireland for a policy focus on men's health.
   Int J Mens Soc Community Health. 2018;1(1):23–35. http://dx.doi.org/10.22374/ijmsch.v1iSP1.4
- 25. Baker P. From the margins to the mainstream: Advocating the inclusion of men's health in policy. A scoping study. London: Global Action on Men's Health.
- Haedt-Matt AA, Pamela K. Revisiting the affect regulation model of binge eating: A meta-analysis of studies using ecological momentary assessment. Psychol Bull. 2011;137(4):660–81. http://dx.doi. org/10.1037/a0023660
- 27. Yogman MW, Amelia ME. The role of fathers in child and family health. In: Grau Grau M, las Heras Maestro M, Riley Bowles H, editors. Engaged fatherhood for men, families and gender equality, healthcare, social policy, and work perspectives. Springer; 2021. p. 15–31.
- 28. Gogineni R, Fallon AE. The adoptive father. In: Brabender VM, Fallon AE, editors. Working with adoptive parents. Hoboken: Wiley; 2015. p. 89–104.
- 29. Khangura S, Konnyu K, Cushman R, et al. Evidence summaries: The evolution of a rapid review approach. Syst Rev. 2012;1:110. http://dx.doi.org/10.1186/2046-4053-1-10
- 30. Pluye P, Hong QN. Combining the power of stories and the power of numbers: Mixed methods research and mixed studies reviews. Annu Rev Public Health. 2014;35:29–45. http://dx.doi.org/10.1146/annurev-publhealth-032013-182440
- 31. Scottish Intercollegiate Guidelines Network's (SIGN). Sign grading system 1999–2012 [Internet]. 2019 [cited 2021 Sept 13]. Available from: https://www.sign.ac.uk/assets/sign\_grading\_system\_1999\_2012.pdf
- 32. Feldman R, Sussman AL, Zigler E. Parental leave and work adaptation at the transition to parenthood: Individual, marital, and social correlates. J Appl Dev Psychol. 2004;25(4):459–79. http://dx.doi.org/10.1016/j.appdev.2004.06.004
- Lidbeck M, Bernhardsson S, Tjus T. Division of parental leave and perceived parenting stress among mothers and fathers. J Reprod Infant Psychol. 2018;36(4):406–20. http://dx.doi.org/10.1080/02646 838.2018.1468557

- 34. Edhborg M, Carlberg M, Simon F, et al. "Waiting for better times": Experiences in the first post-partum year by Swedish fathers with depressive symptoms. Am J Mens Health. 2016;10(5):428–39. http://dx.doi.org/10.1177/1557988315574740
- 35. Chan KL, Emery CR, Fulu E, et al. Association among father involvement, partner violence, and paternal health: UN multi-country cross-sectional study on men and violence. Am J Prev Med. 2017;52(5):671–9. http://dx.doi.org/10.1016/j.amepre.2016.12.017
- 36. Philpott LF, Corcoran P. Paternal postnatal depression in Ireland: Prevalence and associated factors. Midwifery. 2018;56:121–7. http://dx.doi.org/10.1016/j.midw.2017.10.009
- 37. Byun SY, Won SY. Are they ideological renegades? Fathers' experiences on taking parental leave and gender dynamics in Korea: A qualitative study. Gender Work Organ. 2020;27(4):592–614. http://dx.doi.org/10.1111/gwao.12410
- 38. Brandth B, Kvande E. Fathers and flexible parental leave. Work Employ Soc. 2016;30(2):275–90. http://dx.doi.org/10.1177/0950017015590749
- 39. Nishigori H, Obara T, Nishigori T, et al. The prevalence and risk factors for postpartum depression symptoms of fathers at one and 6 months postpartum: An adjunct study of the Japan Environment & Children's Study. J Matern Fetal Neonatal Med. 2020;33(16):2797–804. http://dx.doi.org/10.1080/14767058.2018.1560415
- 40. Fatherhood Institute. Research summary: Paternity leave [Internet]. [cited 2021 Sept 10]. Available from: file:///D:/Fatherhood%20Institute%20(2014)%20 Research%20Summary%20Paternity%20Leave. pdf
- Van Niel MS, Bhatia R, Riano NS. The impact of paid maternity leave on the mental and physical health of mothers and children: A review of the literature and policy implications. Harv Rev Psychiatry. 2020;28(2):113– 26. http://dx.doi.org/10.1097/HRP.0000000000000246
- AQ10 42. Schindler-Ruwisch J, Eaves T. Maternity leave in America during a pandemic: The impact of leave on family wellbeing. Fam Syst Health. 2021. http://dx.doi.org/10.1037/fsh0000629
  - 43. Aitken Z, Garrett CC, Hewitt B, Keogh L, Hocking JS, Kavanagh AM. The maternal health outcomes of paid maternity leave: A systematic

- review. Soc Sci Med. 2015;130:32–41. http://dx.doi.org/10.1016/j.socscimed.2015.02.001
- 44. Avendano M, Berkman LF, Brugiavini A, et al. The long-run effect of maternity leave benefits on mental health: Evidence from European countries. Soc Sci Med. 2015;132:45–53. http://dx.doi.org/10.1016/j.socscimed.2015.02.037
- 45. Jou J, Kozhimannil KB, Abraham JM, et al. Paid maternity leave in the United States: Associations with maternal and infant health. Matern Child Health J. 2018;22(2):216–25. http://dx.doi.org/10.1007/s10995-017-2393-x
- 46. Petts RJ, Knoester C. Paternity leave-taking and father engagement. J Marriage Fam. 2018; 80(5):1144–62. http://dx.doi.org/10.1111/jomf.12494
- 47. Petts RJ, Knoester C, Waldfogel J. Fathers' paternity leave-taking and children's perceptions of father-child relationships in the United States. Sex Roles. 2020;82(3):173–188. http://dx.doi.org/10.1007/s11199-019-01050-y
- 48. Burnett SB, Gatrell CJ, Cooper CL, et al. Fathers at work: A ghost in the organizational machine. Gender Work Organ. 2013;20(6):1–15. http://dx.doi.org/10.1111/gwao.12000
- 49. Holmelin NB. Competing gender norms and social practice in Himalayan farm management. World Dev. 2019;122:85–95. http://dx.doi.org/10.1016/j. worlddev.2019.05.018
- 50. Healy M, Hall D, Shanahan D, et al. HSE rainbow badge: Practice guide for healthcare professionals. Dublin: Health Service Executive; 2021.
- 51. Australian government flexible paid parental leave days [Internet]. [cited 2021 Sept 23]. Available from: https://www.servicesaustralia.gov.au/flexible-paid-parental-leave-days?context=22191
- 52. Citizens Information. Paternal leave [Internet]. Citizens Information. [cited 2021 Sept 30]. Available from: https://www.citizensinformation.ie/en/employment/employment\_rights\_and\_conditions/leave and holidays/parents leave.html
- 53. Her Majesty's government modern workplaces: Government response on flexible parental leave. London: Department for Business, Innovation and Skills; 2012.
- 54. Närvi J, Salmi M. Quite an encumbrance? Workrelated obstacles to Finnish fathers' take-up of parental leave. Community Work Fam.

- 2019;22(1):23–42. http://dx.doi.org/10.1080/13668 803.2018.1487828
- 55. Darwin Z, Galdas P, Hinchliff S, et al. Fathers' views and experiences of their own mental health during pregnancy and the first postnatal year: A qualitative interview study of men participating in the UK born and bred in Yorkshire (BaBY) cohort. BMC Pregn Childbirth. 2017. http://dx.doi.org/10.1186/s12884-017-1229-4
- Philpott LF. Paternal postnatal depression: How midwives can support families. Br J Midwifery. 2012;6(24):470–7. http://dx.doi.org/10.12968/bjom. 2016.24.7.470
- 57. Xiangxian W. The difficult transition to the "new" caring fatherhood: An examination of paternity leave. Soc Sci China. 2020;41(1):182–202. http://dx.doi.org/10.1080/02529203.2020.1719739