

# SCOPING REVIEW: FATHERHOOD AND MASCULINITY AS SMOKING CESSATION AIDS

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**Abstract.** Smoking behavior, particularly among young fathers, has become a worldwide concern. However, men's smoking behavior with partners is still the subject of limited research. This scoping review analyzes the available information, identifies research gaps, and offers viable future study topics as the first step toward such a synthesis. The purpose of this study was to identify factors of reasons for smoking and reasons for quitting smoking in young fathers. Systematic searches for published, empirical studies with an explicit goal were conducted in two databases: google scholar and PubMed; frequent searches for published empirical research with an express purpose were done. The PRISMA flowchart depicted fifty-seven (2004-2021) relevant studies. The results identified the reason to continue smoking, reason for smoking cessation, father's role in smoking cessation, and masculine influence on smoking cessation. In conclusion, smoking is one of the stress management efforts when this is the point of a father, whether to continue smoking to reduce stress or decide to stop smoking for family health reasons. This scoping review contributes to furthering gender focus on males and health promotion programs in preventive non-communicable disease attributes from tobacco seen from a social context.

**Keywords:** masculinity, young father, smoking, scoping review

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## INTRODUCTION

Tobacco use has been identified as an essential risk factor for many non-communicable diseases such as lung cancer, pulmonary diseases, and cardiovascular diseases - both in developed and developing countries in many low-income countries (WHO, 2018). Smoking tobacco is linked to lethal diseases of inactive smokers and impacts the lives of people in the same vicinity as these active smokers (WHO, 2011b). Non-communicable diseases (NCDs), such as diabetes, cancers, and cardiovascular diseases, account for 63% of all deaths worldwide and are responsible for 36 million deaths yearly (WHO, 2011b). Previous research shows that tobacco cigarette consumption is linked to the following diseases: myeloid leukemia (Eng *et al*, 2014; Park *et al*, 2015; Warren *et al*, 2014) and cardiovascular disease (CVD) (WHO, 2011a). Tobacco smoking causes many premature deaths in countries of South-East Asia Region, and NCDs induce 86% of premature deaths in developing countries (WHO SEARO, 2010; WHO, 2013).

Smoking is one of the most significant avoidable reasons for imbalances in well-being. Tobacco cigarette consumption is generally initiated at a young age (5-9 years), equal to 1.7% (WHO SEARO, 2012), where young people are not financially independent. Additionally, it may be higher among those with low financial status, and efforts to stop smoking are unsuccessful (Hiscock *et al*, 2012; WHO, 2012). Tobacco smoking has impacts on health and economic status of smokers including people living around them. Second-hand smokers are at risk of developing lung cancer (Eng *et al*, 2014) who showed that 90% of lung cancer is caused by smoking as well as leukemia (Lee *et al*, 2009). Moreover, children with smoking parents tend to suffer from malnutrition (underweight and stunting) (Best *et al*, 2008), asthma, and ear infection (Hawkins and Berkman, 2011; Wakefield *et al*, 2000). They are more at risk of mortality (Semba *et al*, 2008), low birth weight (Been *et al*, 2014) and allergic reactions (Thacher *et al*, 2014). The significance of comprehending family dynamics and smoking triggers in relation to masculinity was also addresses by Bottorff *et al* (2017).

They looked at methods for overcoming smoking urges and promoting smoke-free environments, concentrating especially on tactics that can make fathers more actively involved in lowering tobacco use in the home. Making cigarette smoke unavailable in the home to safeguard children's health and enticing fathers to give up smoking are some of these tactics. Bottorff *et al* (2017) also looked into how men's behaviors, not simply fatherhood, affect the usage of tobacco in the home. To comprehend how males shape smoking behavior in the context of parenting, they looked at several facets of masculinity, such as personal reflections, modern influences, and family dynamics. Being a father is a period of considerable change in which many men confront their male ideals, which link autonomy and hedonism to smoking, together with newly emerging protector and provider duties that can be difficult to reconcile with smoking as a parent (Bottorff *et al*, 2017).

Fathers' decisions to smoke and changes in smoking behavior were shaped by ideals of masculinity and by partner relationships and family and social contexts, including division of domestic duties and childcare (Kwon *et al*, 2014). The narrow concept of 'father' can be replaced precisely by 'man in the family.

Emphasized femininity is complicit with and accommodates hegemonic masculinity (Bottorff *et al*, 2010b). Elaboration of 'male identity and 'fatherhood' within the concept of masculinity gender-specific explanations of health behavior have prompted researchers to explore fatherhood, masculine ideals, and smoking.

Masculinities are "configurations of practice within gender relations, a structure that includes large-scale institutions and economic relations as well as face-to-face relationships and sexuality" (Connell, 2005). There are three definitions of masculinity: essentialist (identity a feature or aspect that supposedly captures men's essence, *eg* risk-taking, aggression, Zeus energy), positivist (what men are, psych scale that differentiates men and women) and normative (what men ought to do?) (Connell, 2005).

Lupton and Barclay (1997) classify fatherhood into several

categories: fatherhood as a logical step (a natural part of adult masculinity), fatherhood as a revelation (an opening up to intense feeling), fatherhood as overwhelming, fatherhood as an enterprise (something that must be worked at, requiring continued devotion and time), fatherhood as a significant responsibility, father as protector, father as a provider, father as transformative of the self (a necessary life experience that causes the father to reassess and change his sense of self), fatherhood as demanding (a source of stress and strain), good fatherhood as close involvement with one's child, good fatherhood as being there, fatherhood as an opportunity to guide and shape another's life, fatherhood as a source of fulfillment, joy, and satisfaction, and fatherhood as an opportunity for intimacy with another (the child).

This paper describes the reason for young fathers' smoking and quitting smoking by synthesizing the literatures in a complex conceptual framework. The usefulness of the results of this scoping review is that it can minimize the mapping of the reasons for quitting smoking in young fathers.

## MATERIALS AND METHODS

Scope review has excellent use in synthesizing research evidence. It is often used to map the literature in a particular field regarding its characteristics, features, and volume (Levac *et al*, 2010; Peters *et al*, 2015). The five-step approach was used to complete the scoping assessment in this study included (1) identification a research question (why does the young father still smoke after having children?), (2) identifying relevant studies, (3) selecting studies, (4) presenting the data, and (5) collating the results (Arksey and O'Malley, 2005; Levac *et al*, 2010; Peters *et al*, 2015). The screening process utilized Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart (Tricco *et al*, 2018) (Fig 1).

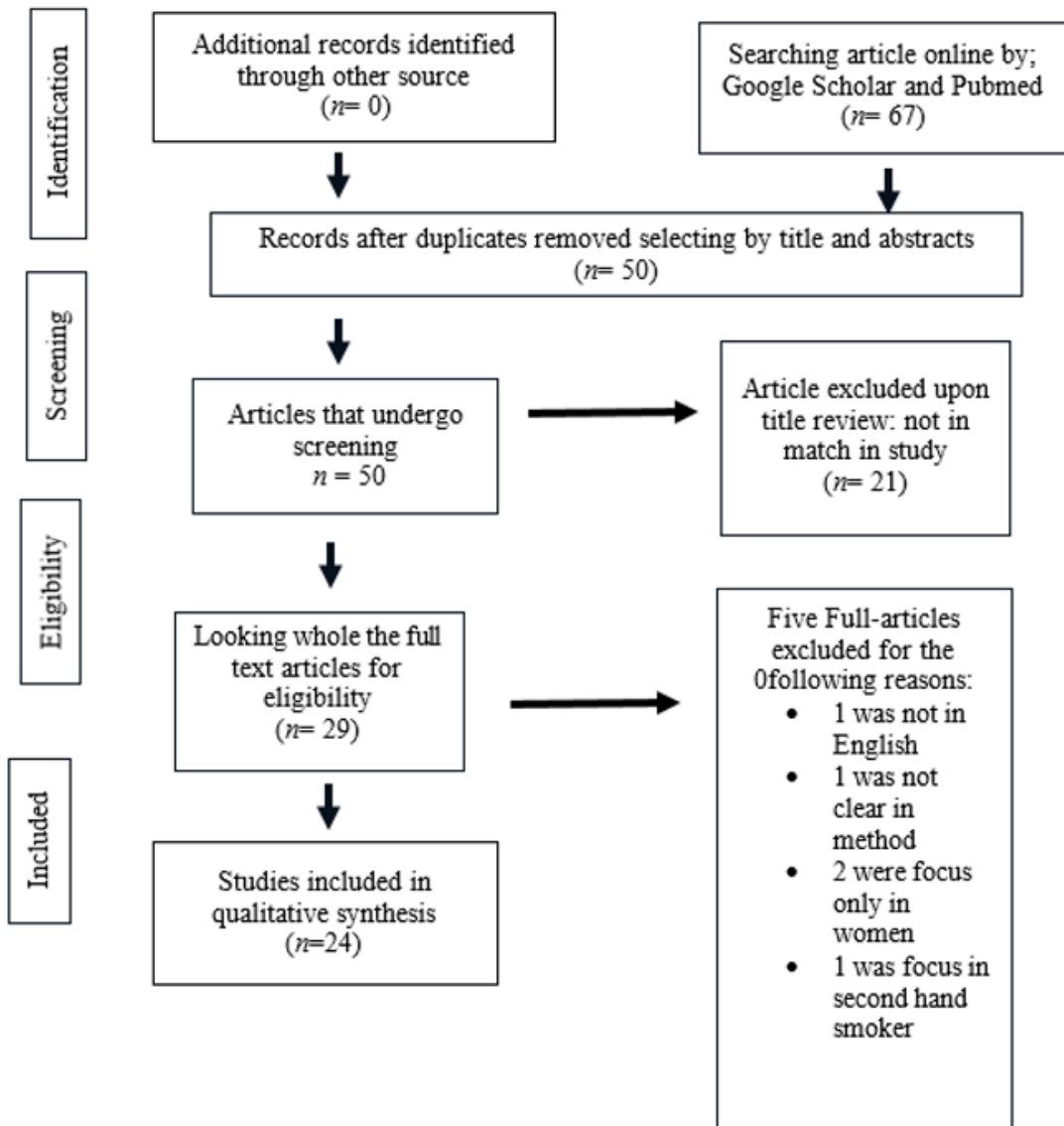


Fig 1 - Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart analysis for scoping review

The search strategy will account for all: possible search terms, keywords, and phrases, truncated and wildcard variations of search terms, and subject headings (where applicable).

## **Search with keywords**

Keywords were selected based on the study's objectives. The term "male" was too broad and the search results were substantial; therefore, particular terms "tobacco cessation expected father smoking" AND "masculinity" AND "fatherhood" were used in searching in Google Scholar and PubMed databases.

## **Data selection**

Articles were considered eligible for review if they were published (a) between 2004 and 2021, (b) in a peer-reviewed journal, and (c) focused on tobacco use and cessation in the father subpopulation.

## **Screening process**

Inclusion and exclusion criteria were applied to titles and abstracts, followed by full-text screening. Abstracts were considered for inclusion if their main study concerned smoking behavior among fathers in continued or stopped smoking. In applying criteria, the reason stems or continues smoking was defined. Articles were reviewed for whether they contained reasons for smoking cessation in fathers, availability of full text, the study's empirical nature, and accessibility in English. Exclusion criteria were unrelated topics, unavailable abstracts or full texts, and articles in languages other than English.

## **Data extraction**

Population and sample, recruitment and method, data collection detail including data collection year, the aim of the study, outcome measures, and key findings of each selected article were extracted (Arksey and O'Malley, 2005).

## Ethical consideration

This study has been approved by the Mahidol University Social Sciences Institutional Review Board (MUSSIRB) with Certificate of Approval No. 2019/252.0612

## RESULTS

### Characteristics and countries of the articles

Fifty articles were found after removing duplicates (Table 1). When screening these studies, articles were classified into the following categories: (1) review articles (2 articles) and (2) primary and secondary data sources (22 articles). This screening process yielded 24 articles for data extraction and collation. Table 2 presents the summary of the general characteristics of the studies. The key themes from the scoping review are reason to continue smoking, reason to smoking cessation,

Table 1  
Keyword searching

Keywords used for searching	Number of articles archived	
	Medline through PubMed	Google Scholar
tobacco cessation expected father AND masculinity AND fatherhood	3	27
smoking use expected OR young fathers AND fatherhood AND masculinity	22	2
tobacco use AND young fathers AND masculinity AND fatherhood	2	1
smoking cessation young fathers AND masculinity	6	4

Table 2  
Summary characteristic of the studies

No.	Reference	Country	Age group	Setting	Method	Key theme
1.	Baig <i>et al</i> (2016)	Saudi Arabia	Adult	Faculty	Quantitative	Reason to smoking cessation
2.	Berg <i>et al</i> (2016)	China	Adult	Community	Qualitative	Reason to smoking cessation
3.	Bottorff <i>et al</i> (2017)	Canada	Adult	Community	Qualitative	Reason to smoking cessation
4.	Bottorff <i>et al</i> (2015)	Canada	Adult	Community	Qualitative	Reason to smoking cessation, Masculine influence to smoking cessation
5.	Hameed and Malik (2021)	Pakistan	Adult	Community	Qualitative	Reason to smoking cessation
6.	Bottorff <i>et al</i> (2019)	Canada	Adult	Community	Qualitative	Reason to smoking cessation, Fathers' role to smoking cessation
7.	Chen <i>et al</i> (2004)	Taiwan	Adult	Community	Quantitative	Fathers' role to Smoking Cessation
8.	Kayser and Semenic (2013)	Canada	Adult	Hospital	Qualitative	Reason to smoking cessation
9.	Khaddouma <i>et al</i> (2015)	Latino	Adult	Health Service Center	Quantitative	Reason to smoking cessation

Table 2 (cont)

No.	Reference	Country	Age group	Setting	Method	Key theme
10.	Kwon <i>et al</i> (2014)	Canada	Adult	Hospital	Qualitative	Masculine influence to smoking cessation, Reason to continue smoking
11.	Kwon <i>et al</i> (2015)	Canada	Adult	Hospital	Qualitative	Reason to smoking cessation, Masculine influence to smoking cessation
12.	Mao <i>et al</i> (2015)	Canada	Adult	Community	Qualitative	Reason to continue smoking, Masculine influence to smoking cessation
13.	Pollak <i>et al</i> (2010)	Spanish	Adult	Community Health Center	Quantitative	Fathers' role to smoking cessation
14.	Pollak <i>et al</i> (2015)	Spanish	Adult	Community	Quantitative	Fathers' role to smoking cessation
15.	Saito <i>et al</i> (2018)	Japan	Adult	Online survey	Quantitative	Fathers' role to smoking cessation, Reason to continue smoking
16.	Saito <i>et al</i> (2015)	Japan	Adult	community	Quantitative	Fathers' role to smoking cessation
17.	Tautolo <i>et al</i> (2017)	New Zealand	Adult	Household	Quantitative	Reason to continue smoking, Reason to smoking cessation

Table 2 (cont)

No.	Reference	Country	Age group	Setting	Method	Key theme
18.	Bottorff <i>et al</i> (2010a)	Canada	Adult	Hospital	Qualitative	Fathers' role to smoking cessation
19.	Abdullah <i>et al</i> (2014)	China	Adult	Hospital	Qualitative	Fathers' role to smoking cessation, Reason to continue smoking
20.	Blackburn <i>et al</i> (2005)	England	Adult	Maternity Unit	Quantitative	Fathers' role to smoking cessation
21.	Mao and Bottorff (2017)	Canada	Adult	Community	Qualitative	Reason to smoking cessation
22.	Noonan <i>et al</i> (2016)	Latino	Adult	Pregnant Clinic	Quantitative	Fathers' role to smoking cessation
23.	Santos and Costa (2015)	Portugal	Adult	Nursery Unit	Quantitative	Reason to continue smoking
24.	Regan <i>et al</i> (2015)	Not mention	Adult	Clinic	Quantitative	Reason to smoking cessation

father's role to smoking cessation, and masculine influence to smoking cessation.

Of the 24 publications that met the inclusion criteria, several studies were located in Canada, few were located in Asian countries including Japan, China, and. As a result, despite the fact that several Asian countries, like Bangladesh, Indonesia, India, Timor Leste, and Indonesia, have a larger smoking population, there is currently little research in the region. Regarding the research field setting, it was discovered from 24 papers that the majority of investigations took place in hospital and community settings, with no setting at the household level. The 24 papers' research methodology was examined both qualitatively and quantitatively.

### **Application of theories that have been used in articles research**

The present study summarizes the theories that have been used in the 24 articles, as a further synthesis.

From Table 3, it can be explained about the theory and its application in the research article in this study. The theories used in research on smoking and quitting smoking in young men, expectant or young fathers belong to the following approaches were Health motivation, Motivation intervention, Transtheoretical model (TTM), Health behavior and change, Social constructionism, Masculinity in gender role, and Theory planned behavior.

## **DISCUSSION**

### **Fatherhood and masculinity are considered cessation aid in smoking cessation**

The search results using the scoping review method for topics

Table 3  
Summary of the theories that have been used in the articles in this study

No.	Reference	Theory used	Reason Smoking	Application
1.	Baig <i>et al</i> (2016)	Motivation		
2.	Berg <i>et al</i> (2016)	Motivation and communication	Communication by a wife to her husband about the motivation to quit smoking	
3.	Bottorff <i>et al</i> (2015)	Masculinity ideal	Masculinity forms a male response to and experience with smoking cessation	
4.	Bottorff <i>et al</i> (2017)	Masculinity and gender relation	Program interventions on smoking cessation, physical activity, and paternity	
5.	Hameed and Malik (2021)	Harm reduction products	The study evaluated four domains that might impact smoking cessation as policy predictors	
6.	Bottorff <i>et al</i> (2019)	Cultural adaptation fatherhood	Socially constructed perspectives that are influenced by social, cultural, and historical contexts.	
7.	Chen <i>et al</i> (2004)	Socioeconomic	A socioeconomic index based on both education attainment and occupation in parent's smoking cessation	
8.	Kayser and Semenic (2013)	Trans-theoretical model (TTM) and Motivational intervention (MI)	Motivates fathers to continue smoking at present and quit smoking in the future	
9.	Khaddouma <i>et al</i> (2015)	Motivation, Self-efficacy	Level of motivation for smoking cessation through changes in self-efficacy	
10.	Kwon <i>et al</i> (2014)	Masculinity and Gender role	Ideals of masculinity shaped fathers' decisions to smoke and changes in smoking behavior	

Table 3 (cont)

No.	Reference	Theory used	Application
11.	Kwon <i>et al</i> (2015)	Socio constructs gender	Link of smoking, masculinity, and fatherhood
12.	Mao <i>et al</i> (2015)	Gender role, masculinity	Masculinity as the facilitators and barrier for smoking practices
13.	Pollak <i>et al</i> (2010)	Change behavior	Perception in smoking
14.	Pollak <i>et al</i> (2015)	Motivation for behavior change	Through changes in risk perceptions, emotions, and self-image
15.	Saito <i>et al</i> (2018)	Perceived norm and Subjective norm	Perceived social norms of smoking
16.	Saito <i>et al</i> (2015)	Social health determinant	Inequalities and changes in the magnitude of disparities in SHS exposure in infants
17.	Tautolo <i>et al</i> (2017)	Motivation	Motivation of cessation
18.	Bottorff <i>et al</i> (2010)	Social Construction and Hegemonic masculinity	Women's constructions of men's smoking and linkages to masculine and feminine ideals
19.	Abdullah <i>et al</i> (2014)	Health behavior	Health consequences of smoking effect
20.	Blackburn <i>et al</i> (2005)	Change behavior	Positive behavior to stop smoking or not smoking inside the house.
21.	Mao and Bottorff (2017)	A gender role, gender identity, gender relationship	Explore Chinese immigrants' masculinities and their relations to the immigrants' smoking.
22.	Noonan <i>et al</i> (2016)	Motivation and Health behavior	Guide to quitting smoking
23.	Santos and Costa (2015)	No mention	No mention
24.	Regan <i>et al</i> (2015)	Epidemiology	Reason for stopping smoking

that have not had many publications, such as the current research topic, have become problematic. The search results that captured 24 articles found the term masculinity, and as many as six articles discussed the relationship of smoking with masculinity. Among them is an article written by Bottorff *et al* (2015) examining how masculinity affects a father's smoking behavior in different perspectives. Research by Bottorff *et al* (2015), in Canada, examined 20 fathers who were smokers and ex-smokers and the influence of masculinity on smoking cessation. They found that a gender-sensitive approach that focuses on relationship factors was an acceptable approach to engage families of lung cancer patients in discussions to support smoking cessation.

Although fathers who link smoking with their masculine identities may be more likely to continue smoking after the arrival of their child, many fathers also experience tensions associated with smoking in their relationships or feel uncomfortable smoking inside the home. Fathers often deliberately separate their smoking from their children and childcare activities by smoking outside the house or concealing their smoking (Kwon *et al*, 2015). The critical question remains around how a holistic and systematic could inform fatherhood and masculinity in smoking cessation

Kwon *et al* (2014) described masculinity and gender relations in smoking behavior among new fathers while Kwon *et al* (2015) discussed the reasons for stopping smoking which were the support of spouses to stop smoking, spouses' pregnancy, and efforts of a father to quit smoking or keep smoking. The two studies mentioned above were used to create constructs for fatherhood and masculinity in this paper in order to examine the parents' effort to stop smoking through the interaction between fatherhood and masculinity. A new father will experience stress, such as the stress of the birth of family members, the routine that will increase (babysitting), family needs, and work. Smoking is one of the stress management efforts (Baig *et al*, 2016; Kayser and Semenic, 2013; Kwon *et al*,

2014; Kwon *et al*, 2015). The birth of a child will affect a father's daily activities, including his decision to either continue smoking in an effort to decrease stress or quit cigarettes for the benefit of his family's health (Abdullah *et al*, 2014; Blackburn *et al*, 2005; Bottorff *et al*, 2010a; Kayser and Semenic, 2013; Tautolo *et al*, 2017).

Stated by Mao *et al* (2015), the experience of a father in smoking and the facilitators and barriers to men's smoking. This study states that changes in smoking behavior due to health reasons, social norms apply, and smoking bans are imposed in Canada. Mao *et al* (2015) explained masculinity as a facilitator and barrier to smoking behavior. The paper concur that masculinity serves as both a deterrent and promotor of smoking.

### **Masculinity as the critical component**

Scoping review offers a better understanding on what approaches have been used and what are the limitations and challenges faced by the reviewer. This information will provide the basis for developing and adopting universal definitions and methodological frameworks (Pham *et al*, 2014). These frameworks will help identifying key reasons to stop or continue smoking among an expectant or a new father.

From the reason for a father's internal motivation to smoke, masculinity is a specific reason centered on gender. Other reasons, such as addiction, stress management, culture, peer pressure, and social and media acceptance, may also be reasons for women to smoke (Amos *et al*, 2012).

Men are less likely to seek professional help for physical health problems such as nicotine dependence or mental issues such as stress. Men will only seek help if the problem has reached a level of severity (Addis and Mahalik, 2003). Neighbors and Howard (1987) speculate that

women might recognize problems more efficiently than men.

The reason for fathers to stop smoking from extrinsic factors are such as the birth of a baby, pregnant wife, and family financial reasons. This applied only to specific to the part of the father alone. At the same time, unrelated reasons, such as disease and symptoms of the disease arising from smoking, can be a reason for a woman to quit smoking. In contrast, external reasons such as the ban on smoking within the home are not only for men but are also applied to women.

### **Cultural background**

The search captured 24 articles with the term masculinity, and as many as six articles discussed the relationship of smoking with masculinity. Research conducted by Bottorff *et al* (2015) examined 20 fathers who were smokers and ex-smokers and the influence of masculinity on smoking cessation. Their study also underlies a concept in this present study. Several studies conducted in Canada (Bottorff *et al*, 2015; Kwon *et al*, 2014, 2015; Mao *et al*, 2015) addressed how masculinity influences a father's smoking behavior, but differed from perspectives such as idealized masculinity, gender roles, masculinity as a facilitator, and barrier of smoking behavior. This present research resulted in five themes, namely (1) reasons for quitting smoking, (2) masculine influence on quitting smoking, (3) father's role in quitting smoking, (4) father's role in continuing to smoke, (5) reasons for continuing to smoke (Table 2). Studies conducted by Bottorff *et al* in 2015 and 2019 revealed how fatherhood and masculinity can affect a father's decision concerning quitting smoking. The difference in the culture of the research site may be one of the considerations in research in Indonesia. However, a qualitative approach will help get more in-depth information and minimize the influence of this culture.

## Variety cues to action quitting smoking behavior

Others argue that the more complex dynamics of the pressures of fatherhood, traditional gender roles in parenting and the desire to smoke demonstrate certain qualities of masculinity (such as risk-taking, independence, and self-reliance); all three contribute to men continuing to smoke (Bottorff *et al*, 2017; Bottorff *et al*, 2015). This intricate relationship describes how a man can act dangerously (because of his masculinity), while as a father, he is required to take care of his family and being forced to quit smoking. Thus, it is the intention of this scoping review to provide an issue of merging masculinity and fatherhood into one paradigm.

Bottorff *et al* (2010a) suggest that fathers continue to smoke not only to offset the stress they experience but also to enact masculinities by displaying strength, emotional control, and managing feelings of vulnerability. Even though men who associate smoking with their masculine identities may be more likely to keep smoking after the birth of their kid, many fathers also encounter smoking-related relationship conflicts or feel uncomfortable smoking at home. Fathers often deliberately separate their smoking from their children and childcare activities by smoking outside the house or concealing their smoking (Kwon *et al*, 2015).

Support from the spouses to quit smoking is very much needed. Although the motivation to quit smoking is not from within, it can strengthen the intention to stop smoking because of a pregnant partner or giving birth.

The results of this scoping review are the basis for future research. In this scoping review, there are several suggestions for research. First, the research location is related to fatherhood and masculinity, where very little research is found in Asian countries. Second, research settings at the household level can be considered because they will be able to obtain more in-depth information accompanied by qualitative methods.

Third, applying various disciplines, such as sociology, psychology and health, is essential in building a solid conceptual framework for research. Fourth, there is a lack of programs targeting smoking cessation in men because the root cause of smoking-especially in Asian countries is male smokers. Study the scoping review approach has the strength of being particularly effective at combining research evidence and mapping the relevant data, such as social, political, and health data.

The scoping review approach finds several limitations, such as the lack of studies on fatherhood and masculinity in smoking behavior and the limitation of obtaining full-text articles. Thus, the scoping review approach was not in-depth in exploring and analyzing the problem. The analyses by Arksey and O'Malley (2005) and Peters *et al* (2015) did not involve the application of the theories utilized in the scoping review.

Search is based on keywords: smoking, cessation, male, tobacco use, and fathers. Of all the keyword searches, only a few articles are netted according to keywords for the concept of masculinity. This one also underlies a concept in this research. A new father will experience stress, such as the stress of the birth of family members. Smoking is one of the stress management efforts when this is the point of a father, whether to continue smoking to reduce stress or decide to stop smoking for family health reasons.

In summary, this paper describes the reason for smoking and quitting smoking and synthesizes the literature in a complex conceptual framework. The critical question remains around how a holistic and systematic could inform fatherhood and masculinity in smoking cessation. This scoping review method allows the synthesis of the reasons for quitting smoking or continuing to smoke as a father. The highlight is the context of fatherhood and masculinity. Identifying the father's role is essential in order to comprehend its impact on smoking behavior. To address future research, this might focus on fathers' context to stop smoking from other

perspectives such as social, health, cultural, and policy. Finally, the authors try to show that some of the ideas presented in this paper are supported by empirical research.

#### CONFLICT OF INTEREST DISCLOSURE

The authors declare no conflicts of interest.

#### REFERENCES

- Abdullah AS, Ma Z, Liao J, *et al.* Addressing parental smoking in pediatric settings of Chinese hospitals: a qualitative study of parents. *Biomed Res Int* 2014; 2014: 382345.
- Addis ME, Mahalik JR. Men, masculinity, and the contexts of help seeking. *Am Psychol* 2003; 58: 5-14.
- Amos A, Greaves L, Nichter M, Bloch M. Women and tobacco: a call for including gender in tobacco control research, policy and practice. *Tob Control* 2012; 21: 236-43.
- Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol* 2005; 8: 19-32.
- Baig M, Bakarman MA, Gazzaz ZJ, *et al.* Reasons and motivations for cigarette smoking and barriers against quitting among a sample of young people in Jeddah, Saudi Arabia. *Asian Pac J Cancer Prev* 2016; 17: 3483-7.
- Been JV, Nurmatov UB, Cox B, Nawrot TS, van Schayck CP, Sheikh A. Effect of smoke-free legislation on perinatal and child health: a systematic review and meta-analysis. *Lancet* 2014; 383: 1549-60.
- Berg CJ, Zheng P, Kegler MC. Family interactions regarding fathers' smoking

- and cessation in Shanghai, China. *J Smok Cessat* 2016; 11: 199-202.
- Best C, Sun K, de Pee S, Sari M, Bloem M, Semba R. Paternal smoking and increased risk of child malnutrition among families in rural Indonesia. *Tob Control* 2008; 17: 38-45.
- Blackburn C, Bonas S, Spencer N, Dolan A, Coe C, Moy R. Smoking behaviour change among fathers of new infants. *Soc Sci Med* 2005; 61: 517-26.
- Bottorff JL, Kelly MT, Oliffe JL, Johnson JL, Greaves L, Chan A. Tobacco use patterns in traditional and shared parenting families: a gender perspective. *BMC Public Health* 2010a; 10: 239.
- Bottorff JL, Oliffe JL, Kelly MT, *et al.* Men's business, women's work: gender influences and fathers' smoking. *Sociol Health Illn* 2010b; 32: 583-96.
- Bottorff JL, Oliffe JL, Sarbit G, *et al.* Assessing the feasibility, acceptability and potential effectiveness of an integrated approach to smoking cessation for new and expectant fathers: The Dads in Gear study protocol. *Contemp Clin Trials* 2017; 54: 77-83.
- Bottorff JL, Oliffe JL, Sarbit G, Kelly MT, Cloherty A. Men's responses to online smoking cessation resources for new fathers: the influence of masculinities. *JMIR Res Protoc* 2015; 4: e54.
- Bottorff JL, Sarbit G, Oliffe JL, Caperchione CM, Wilson D, Huisken, A. Strategies for supporting smoking cessation among indigenous fathers: a qualitative participatory study. *Am J Mens Health* 2019; 13: 1557988318806438.
- Chen L, Shih SF, Chang HC. The arrival of a new life and smoking cessation: how fathers and mothers stop smoking for their babies, 2004 [cited 2019 Apr 30]. Available from: URL: <http://www.psc.ntu.edu.tw/C2004paper/%E9%99%B3%E9%BA%97%E5%85%89%20%E6%96%BD%E6%B7%91%E8%8A%B3%20%E5%BC%B5%E8%8F%AF%E5%BF%97--The%20arrival%20of%20a%20new%20life%20and%20smoki%E2%80%A6.pdf>

- Connell RW. *Masculinities*. 2<sup>nd</sup> ed. Berkeley, CA: University of California Press; 2005.
- Eng L, Su J, Qiu X, *et al*. Second-hand smoke as a predictor of smoking cessation among lung cancer survivors. *J Clin Oncol* 2014; 32: 564-70.
- Hameed A, Malik D. Barriers to cigarette smoking cessation in Pakistan: evidence from qualitative analysis. *J Smok Cessa* 2021; 2021: 9592693.
- Hawkins SS, Berkman L. Increased tobacco exposure in older children and its effect on asthma and ear infections. *J Adolesc Health* 2011; 48: 647-50.
- Hiscock R, Bauld L, Amos A, Fidler JA, Munafò M. Socioeconomic status and smoking: a review. *Ann NY Acad Sci* 2012; 1248: 107-23.
- Kayser JW, Semenic S. Smoking motives, quitting motives, and opinions about smoking cessation support among expectant or new fathers. *J Addict Nurs* 2013; 24: 149-57.
- Khaddouma A, Gordon KC, Fish LJ, Bilheimer A, Gonzalez A, Pollak KI. Relationships among spousal communication, self-efficacy, and motivation among expectant Latino fathers who smoke. *Health Psychol* 2015; 34: 1038-42.
- Kwon JY, Oliffe JL, Bottorff JL, Kelly MT. Heterosexual gender relations and masculinity in fathers who smoke. *Res Nurs Health* 2014; 37: 391-8.
- Kwon JY, Oliffe JL, Bottorff JL, Kelly MT. Masculinity and fatherhood: new fathers' perceptions of their female partners' efforts to assist them to reduce or quit smoking. *Am J Mens Health* 2015; 9: 332-9.
- Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. *Implement Sci* 2010; 5: 69.
- Lee KM, Ward MH, Han S, *et al*. Paternal smoking, genetic polymorphisms in CYP1A1 and childhood leukemia risk. *Leuk Res* 2009; 33: 250-8.
- Lupton D, Barclay L. *Constructing fatherhood, discourses and experiences*. London, UK: SAGE Publication Ltd; 1997.

- Mao A, Bottorff JL. A qualitative study on unassisted smoking cessation among Chinese Canadian immigrants. *Am J Mens Health* 2017; 11: 1703-12.
- Mao A, Bottorff JL, Oliffe JL, Sarbit G, Kelly MT. A qualitative study of Chinese Canadian fathers' smoking behaviors: intersecting cultures and masculinities. *BMC Public Health* 2015; 15: 286.
- Neighbors HW, Howard CS. Sex differences in professional help seeking among adult black Americans. *Am J Community Psychol* 1987; 15: 403-17.
- Noonan D, Lyna P, Fish LJ, *et al.* Unintended effects of a smoking cessation intervention on Latino fathers' binge drinking in early postpartum. *Ann Behav Med* 2016; 50: 622-7.
- Park SL, Carmella SG, Chen M, *et al.* Mercapturic acids derived from the toxicants acrolein and crotonaldehyde in the urine of cigarette smokers from five ethnic groups with differing risks for lung cancer. *PLoS One* 2015; 10: e0124841.
- Peters MD, Godfrey CM, Khalil H, McInerney P, Parker D, Soares C. Guidance for conducting systematic scoping reviews. *Int J Evid Based Healthc* 2015; 13: 141-6.
- Pham MT, Rajić A, Greig JD, Sargeant JM, Papadopoulos A, McEwen SA. A scoping review of scoping reviews: advancing the approach and enhancing the consistency. *Res Synth Methods* 2014; 5: 371-85.
- Pollak KI, Denman S, Gordon KC, *et al.* Is pregnancy a teachable moment for smoking cessation among US Latino expectant fathers? A pilot study. *Ethn Health* 2010; 15: 47-59.
- Pollak KI, Lyna P, Bilheimer AK, *et al.* Efficacy of a couple-based randomized controlled trial to help Latino fathers quit smoking during pregnancy and postpartum: The Parejas Trial. *Cancer Epidemiol Biomarkers Prev* 2015; 24: 379-85.

- Regan EA, Bowler RP, Make BJ, Crapo J. Smoking cessation: reasons to stop and impact on FEV1, 2015 [cited 2019 July 11]. Available from: URL: [https://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2015.191.1\\_MeetingAbstracts.A4488](https://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2015.191.1_MeetingAbstracts.A4488)
- Saito J, Shibanuma A, Yasuoka J, Kondo N, Takagi D, Jimba M. Education and indoor smoking among parents who smoke: the mediating role of perceived social norms of smoking. *BMC Public Health* 2018; 18: 211.
- Saito J, Tabuchi T, Shibanuma A, Yasuoka J, Nakamura M, Jimba M. 'Only fathers smoking' contributes the most to socioeconomic inequalities: changes in socioeconomic inequalities in infants' exposure to second hand smoke over time in Japan. *PloS One* 2015; 10: e0139512.
- Santos NF, Costa RA. Parental tobacco consumption and child development. *J Pediatr (Rio J)* 2015; 91: 366-72.
- Semba RD, de Pee S, Sun K, Best CM, Sari M, Bloem MW. Paternal smoking and increased risk of infant and under-5 child mortality in Indonesia. *Am J Public Health* 2008; 98: 1824-6.
- Tautolo ES, Iusitini L, Taylor S, Paterson J. Motivations for smoking cessation and the impact of regulatory tax increases amongst fathers within the Pacific Islands Families Study. *J Smok Cessat* 2017; 12: 32-7.
- Thacher JD, Gruzieva O, Pershagen G, *et al.* Pre-and postnatal exposure to parental smoking and allergic disease through adolescence. *Pediatrics* 2014; 134: 428-34.
- Tricco AC, Lillie E, Zarin W, *et al.* PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Ann Intern Med* 2018; 169: 467-73.
- Wakefield M, Banham D, Martin J, Ruffin R, McCaul K, Badcock N. Restrictions on smoking at home and urinary cotinine levels among children with asthma. *Am J Prev Med* 2000; 19: 188-92.

- Warren GW, Alberg AJ, Kraft AS, Cummings KM. The 2014 Surgeon General's report: "The Health Consequences of Smoking—50 Years of Progress": a paradigm shift in cancer care. *Cancer* 2014; 120: 1914-6.
- World Health Organization (WHO). Global status report on non-communicable diseases 2010, 2011a [cited 2019 Oct 25]. Available from: URL: [https://apps.who.int/iris/bitstream/handle/10665/44579/9789240686458\\_eng.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/44579/9789240686458_eng.pdf?sequence=1&isAllowed=y)
- World Health Organization (WHO). WHO global report on trends in prevalence of tobacco smoking 2000-2025, second edition, 2018 [cited 2019 Nov 12]. Available from: URL: <https://escholarship.org/uc/item/4dc4t5d9>
- World Health Organization (WHO). WHO global report: mortality attributable to tobacco, 2012 [cited 2019 Oct 23]. Available from: URL: <https://apps.who.int/iris/rest/bitstreams/53361/retrieve>
- World Health Organization (WHO). WHO report on the global tobacco epidemic, 2013: enforcing bans on tobacco advertising, promotion and sponsorship, 2013 [cited 2019 Oct 18]. Available from: URL: [https://apps.who.int/iris/bitstream/handle/10665/85380/9789241505871\\_eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/85380/9789241505871_eng.pdf)
- World Health Organization (WHO). WHO report on the global tobacco epidemic, 2011: warning about the dangers of tobacco, 2011b [cited 2019 Oct 18]. Available from: URL: [https://apps.who.int/iris/bitstream/handle/10665/44616/9789240687813\\_eng.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/44616/9789240687813_eng.pdf?sequence=1&isAllowed=y)
- World Health Organization, Regional Office for South-east Asia (WHO SEARO). Brief profile on gender and tobacco in South-east Asia region, 2010 [cited 2019 Sep 01]. Available from: URL: <https://apps.who.int/iris/bitstream/handle/10665/204825/B4519.pdf?sequence=1&isAllowed=y>
- World Health Organization, Regional Office for South-east Asia (WHO SEARO). Global adult tobacco survey: Indonesia report 2011, 2012 [cited 2019 Jul 25]. Available from: URL: <https://apps.who.int/iris/bitstream/handle/10665/205137/B4934.pdf?sequence=1&isAllowed=y>