



Faecal Incontinence Management: A Systematic Literature Review

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Abstract

Faecal incontinence (FI) has been a hidden problem in society as for many people it is embarrassing problem. Many people with FI as well as their caregivers do not understand how to manage it properly. However, among older adults, it would bring destructive effect if it is not well managed. On the other hand, this problem is also has impacts on their caregivers. The purpose of this study was to provide a literature review that provides information about FI management and the experiences including the challenges of conducting their caring activity for their older family member. 5 Electronic databases were used to search the research articles. Using the keywords and inclusion criteria there were 62 articles found. Through manual search, there were 9 articles were found. Appraisal process was taken using CASP (Critical Appraisal Skills Programme) for qualitative studies and Johns Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal for quantitative studies. The articles were assessed carefully. Only 20 articles were included in the systematic literature review. All of the articles were English-language publications. There were qualitative studies and quantitative research. One of them was Randomized Control Trial. The main approaches to manage FI were the use of absorbent products, and changing diet and eating patterns. However, there were still some people did not manage to use anything to solve the problem of FI. The caring activities have the positive and the negative impacts on caregiver. Caring for people with FI is challenging and the role of caregiver was influenced by culture. Study of FI is scarce. There are many studies needed about FI management, especially in lower-middle-income economies countries.

Keywords: Faecal incontinence; older adults; caregivers; management; experiences.

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1. Introduction

Faecal Incontinence (FI) is the “continuous or recurrent uncontrolled passage of faecal material (more than 10 mL) for at least one month in an individual older than three years of age” [1]. Although FI can be found in children, aging is the major risk factor of its incidence [2, 3]. A study in the United States found that 17% to 66% of older adults have FI [4].

Faecal incontinence has been a hidden problem in society as for many people it is embarrassing problem [5]. In fact, FI could be found among older people cared in nursing homes [6] as it becomes one reason of admission to aged care facilities [7]. Nevertheless, the majority of people with FI are living in the community setting [8]. It is predicted that 1.4% and 19.5% of people with FI are in community [9]. In Bali (Indonesia) there are 23.1% from 303 older people with FI in the community [10]. These facts indicate people in community need information of how to manage FI.

FI has impacts on those who have it. FI significantly is ruining quality of life of people with it [11]. Incontinence-Associated Dermatitis (IAD) is the common problem found among people with FI [12, 3]. Moreover, FI has impacts on people with it economically and psychologically [14]. Over all, it would result in low quality of life of people with it [14].

FI also has impacts on caregivers. Caregivers’ quality of life is also impacted by their role in managing FI [15]. It impacts patients and family psychosocially and financially [16]. Care recipient ability to perform activity daily of livings determine family caregivers’ quality of life [17].

The management of FI is crucial as it has impacts on the older people themselves and their caregivers, however caring for older people with faecal incontinence is considered not easy. Many factors influence the role of caregivers. Many people with faecal incontinence as well as their caregivers do not understand how to manage it properly. However, if it is not well managed it would bring significant destructive effect to people with them.

There were some literature reviews about FI and IAD (Incontinence-Associated Dermatitis) management found. However, there was no literature review found on caregivers’ experiences of managing FI. Understanding about FI management and the background is needed in order to know if the measurements are appropriate to be applied in any background. Since this literature review is also capturing the background of studies, this helps reader to choose the right measurement where possible.

2. Objective

It is important to explore the experiences of caregivers in managing FI among older people. The benefits of exploring this issue are to get a broad idea of the challenges that caregivers face when giving care to older adults with FI. The aim of this study was to provide a systematic review of faecal incontinence management and the experiences including the challenges of conducting their caring activity for their older family member. Through the systematic literature review the reader would gain a comprehensive understanding of this topic.

3. Methods

The primary resources for research article searching were the electronic databases. The articles were searched through the 5 electronic databases: CINAHL, Medline, PubMed, AgeLine and Google Scholar. The research literatures were searched using the following search terms: (a) FI*or fecal incontinence*or bowel incontinence; (b) older people*or frail elderly* or aged; (c) caregivers; (d) caregiver’s experiences* or, ‘activity daily living* or caregiver’s burden* or caregiver’s role strain; and (e) ‘management. To limit the number of articles retrieved, the articles were selected by using inclusion criteria: published from 2004 up to 2014, written in English, and only include research articles with older people as participants (table 1). By reading through each abstract and using the keywords and the selection criteria, 62 articles were found. In order to obtain more relevant research articles, a manual search was also conducted. There were nine articles found through the manual search. Overall, there were 71 research articles found; however, after the appraisal process of carefully reading the content of the articles found, a final total of 20 articles were included. Those processes are shown in figure 1.

Table 1: Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
-Year 2004 up to 2014	-Research articles that have children as the participants
-English and Indonesian language	-Research about incontinence that have only people with urinary incontinence without FI
-Research articles that have older people as the participants	

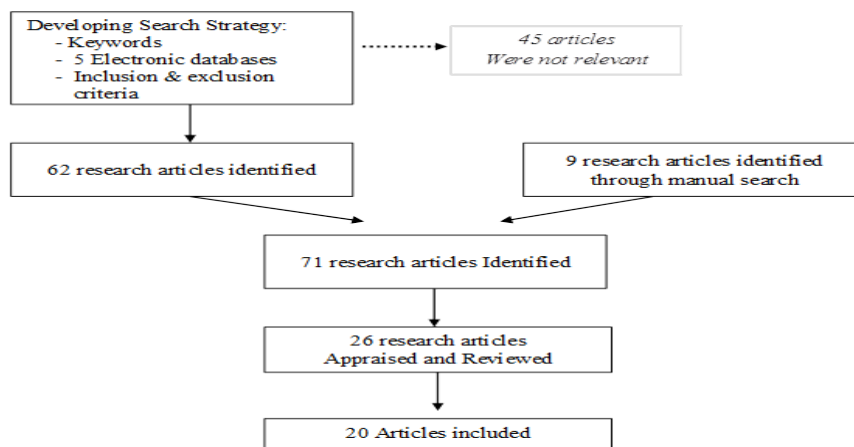


Figure 1: Literature Selection Process

This literature review uses two kinds of appraisal tools, they are CASP (Critical Appraisal Skills Programme) for qualitative studies, and Johns Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal for quantitative studies. The CASP offers some tools for critical appraisal in UK (CASP UK Website), while Johns Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal were developed by a team of the Johns Hopkins Hospital and the Johns Hopkins University School of Nursing in the United States of America [18]. In this literature review the articles are grouped based on the themes. There are 3 groups of themes as described in table 2.

Table 2: Identified Themes and their Empirical Sources

Themes Identified from the Reviewed Studies	Empirical Resources
Themes 1: Management of FI	Al-Samarrai and his colleagues (2007); Bliss & Savik (2008), Bliss and his colleagues (2005); Bliss and his colleagues (2011); Croswell and his colleagues (2010); Peden-McAlpine and his colleagues (2008)
Themes 2: Caregivers' role and Challenges	Brown and his colleagues (2009); Butler and his colleagues (2008); Chan & Cui (2011); del-Pino-Casado and his colleagues (2011), Friedemann-Sánchez (2012); Garces and his colleagues (2009); Schröder-Butterfill and his colleagues (2010); Tang and his colleagues (2007)
Themes 3: The Experiences of Caregivers of People with FI	Drennan and his colleagues (2011); Finne-Soveri and his colleagues (2008) Grover and his colleagues (2010); Haley and his colleagues (2009); Holdsworth (2013); Sørbye and his colleagues (2009)

4. Results

4.1. The Management of FI

Incontinence-dermatitis is a major issue among older people with FI. One study showed that 85% out of 75 people who lived in the community experienced problem with their skin [19]. The other study conducted by Rohwe and his colleagues (2013) found that from 189 people being studied 52.5% of them have incontinence-associated dermatitis problem [20]. They found that the most affected are was anal area [20]. This happens because the skin is exposed repeatedly by the stools, and if it happens often the skin will get inflamed [20].

A number of studies conducted in both developing and developed countries showed that basic absorbent continence aids were used widely in FI management in the community. In Colombia, 96% of study participants

reported using anorectal dressings, 70% used sanitary pads, while the rest used panty liners, and briefs [19]. Most of the participants used anorectal dressings because these were best able to absorb stool effectively and to reduce the smell [19]. In the United States, the use of absorbent products appeared to be a common practice to manage FI among older people in the community. Almost 50% of participants used disposable absorbent products [19]. This type of absorbent was used because they overcome the anxiety of faeces staining (81%) and increase the value of life in general (76%) as they protect the faeces from seeping out [19].

The findings of both of these studies were consistent with a study conducted in the United Kingdom where up to 45% of participants with higher severity of FI used absorbent products [21]. The absorbent products were replaced between one and three times a day [21]. Size, shape, material, ability to control odour, and leakage prevention capacity were the aspects of absorbent products that concerned most of the respondents [21]. These studies revealed that most people in the community were familiar with absorbent products as a tool to contain stool and to reduce odour. However there were also some people who do not use absorbent products due to the lack of information of incontinence products and because of the cost [21].

The other tools used for FI management were disposable wipes and gloves. A controlled trial study that was conducted in Los Angeles which showed that these two tools were preferred by care workers in nursing homes [4]. There was a study about effective management of incontinence called One Step Incontinence System (OSIS) [4]. This study used the controlled-trial method and was held with 24 incontinence nursing home residents. The study aimed to assess the 61 certified nurse assistants (CNAs) in applying incontinence products such as one-use swabs and gloves. Based on the experiences of some CNAs, managing incontinence in the nursing homes setting is more effective by using swabs and gloves [4]. However, the research found that there was a tendency for excessive use of both of these tools in nursing homes. For economic purposes, it was suggested that only three or four wipes should be used for every cleaning [4].

Two quantitative studies [22, 23] and one qualitative study [24] indicated that people in the community were managing their diet in order to deal with their FI. The study found that people avoided fatty foods, spicy foods, caffeine, alcohol, dairy products, and instead consumed lots of vegetables [23]. As well, many people created a consistent eating schedule [23]. Diet management appeared to be the second most important approach to managing FI in the community. Among 188 community-dwelling participants, controlling the foods they consumed is the way they controlled their defecation process [23]. They consumed foods which are good for their bowel health such as vegetables, but avoided oily foods [23].

Despite the usefulness of absorbent products, diet management and other aids, such as wipes and gloves, it was found that FI was not managed well in the community [22, 21]. Some of the reasons which contributed to this situation included the severity of FI, people's preferences, discomfort caused by the absorbent products, feelings of shame, lack of information, and high cost [21]. Women tend to try many measures to manage their bowel problems for comfort but they struggled due to lack information from practitioners [24]. Lack of information about FI by health professionals, and feelings of shame towards FI were found to be the main predictors of poor FI management in the community [24]. Moreover, Bliss and his colleagues (2011) pointed out that the severity of FI determined people's eagerness to search for help from healthcare providers [21]. The literature also

revealed that misperceptions about FI often stop people from seeking help from health professionals.

4.2. Caregivers' Roles and Challenges

A study conducted by Friedemann-Sánchez (2012) emphasizes that the culture has strongly influenced the way people react [25]. In this case to encourage people to feel responsible for giving care to older parents [25]. In this study, among 38 aged parents with children as caregivers in Colombia, the caregivers spent a considerably long time caring for their parents [25]. Caregivers need to give up their interests and activities or change their life style in order to meet their parents' care needs [25].

Caregiving activities for older people can result high burden and depression for caregivers in different ways [26]. Caregiver burden was resulted from the difficulties of the caregiving tasks, while depression was resulted from the isolation [26]. In addition this study remark that the new caregivers at risk of experiencing burden and depression because caregiving tasks were considered not easy to do, but the burden and depression can be lessening by having knowledge of the tasks and by support of other family members [26].

Furthermore, the level of need for assistance for performing activity daily living and cognitive declines of care recipients; caregivers' level of education, troubles that happen in the family, age and bad health status of the caregivers are contribute factors of burden [27]. The caregivers who give more time for caregiving activity will experience more burden and more drawbacks than those give less time [27]. Moreover, negative feeling towards care recipients appeared when the caregivers, in performing their caregiving tasks, were not supported by others [28]. Another study in Hong Kong indicates that factors contribute to the burden to the caregiver of older people [28]. If the caregivers are women, following Chinese culture, do not have good coping strategy and the care recipients are really dependent to them, those factors become the predictor of having more burdens [28]. This study emphasize that if the caregivers and care recipient have not good marital relationship the burden will be bigger [28].

Furthermore, the caregiving activities are not the only significant factors that would result in problems for family caregivers, but also the culture. In Puerto Rican culture, the word "children responsibility" is attached to the children [29]. Giving care to parents is the expectation that is known as "children responsibility" there [29]. Carrying the responsibility of caring for the older parents makes it possible for them to have conflict with other relatives [29]. Apart from the relatives, they can sometimes have conflict with the clients themselves [29]. Likewise, they are also facing other problems that do not relate to their responsibility as caregivers [29].

People might be assumed that giving care will affect caregivers' health; in fact, it would not happen that way. Brown and his colleagues (2009) highlighted that the mortality would not increase when ones give care of more than fourteen hours per week for their family member but by the demand of the ADLs and IADLs [30]. This study also found that there was no relationship between cognitive deficiency of the care recipients and the mortality of caregivers [30]. A cross-sectional study about family caregivers with 352 participants in Turkey shows that caregiving activity for older people is more likely to affect them psychologically rather than physically when both of them have good relationship [31].

A study of 30 family caregivers that identified the experiences of caregivers doing their duty (90% of them were the offspring) was conducted in Puerto Rico [29]. Despite all the things that they have to do, such as assist the elderly with their daily living activities and engage in their own activities - in general, the study proved that 75% of participants did not feel depressed doing caregiving activities [29]. This is because they accept the task as a part of their function as children, especially if they are women [29]. The other thing that causes them delight to do such difficult task is that they live near their parents. Moreover, it is because sometimes the parents have no one else to help them. Nonetheless, there were still some participants that felt it was hard to do their role as caregivers for example showering older adults.

In addition, a study conducted in Taiwan proves that if the person who gives care is the partner of the care recipient, the carer more likely to experience hardship [32]. However, the hardship will reduce if they have understanding about the patient's feeling and suffering and knowing how to treat the patient correctly [32].

Supporting the idea that the meaning of the caregiving activities is important, a study of Spanish family caregivers acknowledges that the intention of caregivers when they are performing their duty relates to their eagerness to do their duty [33]. Even though more than 60% of the participants give care to the frail elderly for more than 40 hours in a week, they still do their task consistently [33]. This study also points out that the spirit of sacrifice would then be maintained by the sense of mutual relationship between caregivers and care recipients. As a consequence, this relationship has lessened the impact on the subjective burden of caregivers.

4.3. The Experiences of Caregivers of People with FI

Urinary incontinence have strong relationship with FI, and it turn into stronger relationship when the degree of weakness is increase. In the condition of incontinence, caregivers need to maintain the quality of life of care recipients by making sure they can do toileting properly [34]. The probability for elderly people to be put in aged care facilities increase with the present of FI, but the probability reduce if family caregivers eager to give their time for caring person with FI [35].

People with FI obviously demand more caring time from either some workers such as health carers, nurses, homemaking, or from informal caregivers. For the informal care-givers, FI requires about 38.83 working hours per week, while only 18.36 hours are needed for care people with no FI [36]. The findings of qualitative study of 32 caregivers show that the caregivers respect their care recipients and trying hard to manage elimination activities such as voiding urine and defecation to give care to their family member privately [37]. They maintain the dignity of care recipients as much as they can. They struggle to assist their family member to stay clean and fresh every day by themselves so that their care recipients will not be a shame when their clothes were changed [37]. The most difficult part that the caregivers found during the caring time is when they assist the patient doing bowel elimination. Helping someone for defecating so much influences their mood condition [37]. Similarly, Holdsworth (2013) argues that the duty of managing daily living activities overwhelmed caregivers [31].

Emphasizing on considering the core carer from family, a study of 75 stroke survivors' caregivers conducted

indicates that there are two sides of caregiving activities become caregiver's consideration about their responsible as caregivers: the negative and the positive impacts [38]. Firstly, in the negative side, the caregivers can experiences the difficulties while giving care to the patients that has already suffered from vascular brain disease [38]. This disease makes them losing their normal cognitive functions. When the caregivers assist such that problems they will be more stressful [38]. Besides, emotion and physical problem of this kind of patients can also make them more on tense. For example, in the physical area, FI becomes something that problematic. Secondly, on the positive side, more than 90% of caregivers find their life meaningful and through this experience they can value their life more [38]. In this condition their duties are a little bit covered with the sense of meaningful [38].

5. Discussion

To understand the current fact of experiences of caregivers who are taking care of people with faecal incontinence, a systematic review of the literature was conducted. The literature search was aiming to capture the experiences of caregivers of older people with faecal incontinence. The focus is to capture FI management and the challenges of conducting their caring activity.

This review shows that research on faecal incontinence is scarce. There are only 6 [22, 4, 19, 21, 23, 24] relate to management of FI in this literature review. Previous studies have found that some measures were taken to manage FI. The main purposes were to maintain skin integrity, avoid stool leakage as well as to control odour. The use of absorbent products, and changing diet and eating patterns, were the main approaches used in managing FI in the community setting. Most of the people being studied used absorbent pads to manage their FI. The absorbent products are the main way to manage FI problem in aged care in nursing homes or in community.

However, most of the included studies were conducted in high-income countries such as the United Kingdom. It would be different to what has been happening in the lower-middle-income economies country as using absorbent pads cost a lot of money [21]. In addition, no one of the studies that capture the FI management conducted in Asian countries, which probably with lower-middle-income economies. Study about FI management in lower-middle-income economies countries is needed. The measure applied in the studies included would not fit to some countries in Asia due the economic condition.

In some countries, a role of caregiver, more likely, is influenced by culture. Usually, a caregiver is children or spouse of the care recipients [30, 33], besides, women tend to take the role as caregivers [29]. These articles are in tune with the context in most countries in Asia, where older people would be cared by their relatives at home with their children. Although their duties are uneasy, they can be strive and commit to do the duties because they are encouraged by the culture.

There were 8 studies [30, 26, 28, 33, 25, 27, 39, 32] captured caregiver role and challenges. From the reviewed articles it is known that caregiving activities could bring high burden and depression [26, 32]. According to Brown and his colleagues [30] and del-Pino-Casado and his colleagues [33] a caregiver can spend 14 up to 40 hours per week [30, 33]. However, a study conducted by Sánchez-Ayéndez [29] shows that caregivers can also

avoid the stress [29]. One of the way can be taken to lessen the depressed feeling is by giving the knowledge about how to treat the care recipients properly [32]. This facts show that improving of caregivers' knowledge is crucial, otherwise, caregivers would be stressful. As consequence, they would not give good care to care recipients.

This review is limited to literature written in English. The limiter was set for English and Indonesian, but there was no article in Indonesian found. Most of the researches were using the cross-sectional study design and only one is Randomized Controlled Trial (RCTs) whereas RCTs is more powerful in term of a hierarchy of evidence than other research design [40]. RCTs is known as the most valid of evidence [40].

There are still three studies do not mention about ethical clearance while ethical clearance is the important part of conducting research. Moreover, although the majority of included studies were using good sample size, there were more than 30% were using small sample size. This condition might relate to the fact that the faecal incontinence problem is hidden because many people are still reluctant to admit it to health professionals.

6. Limitations

Regarding to the few numbers of the studies found, there are various qualities of the studies. Some of them are good quality of studies that have good and representative sample size, using the valid and reliable instrument for testing the participants, or even (one of them) using randomized control trial. Furthermore, most of the studies were approved by the ethics committee that is considered essential for conducted the studies using human as the participants. In contrast, there are some limitations found from the studies.

Firstly, some of the studies only used small sample size that it has consequence of the representative of the sample. In quantitative study, the sample size is important to reflect the generalizability. In some of the studies found, even though the sample size is enough, but the samples were not representative. It might relate to the process of sampling, how the sample recruitment processed. Moreover, most of the studies found use cross-sectional design which is considered less cost comparing with the longitudinal design. However, sometimes, the cross-sectional design cannot reflect the truth of the result because it only capture one time of the condition. In addition, some of the studies used secondary data from the previous studies or survey that sometimes some variables were needed in the studies unavailable. Next, the limitation of the studies reviewed is some of the studies used internet-based methodology that might influence the generalizability of the findings. Lastly, some articles do not mentioned about ethics concern, how the ethics committee approve their studies which is crucial part in conducting studies on the human.

7. Recommendations

Having reviewed the studies about the experience of family caregivers of caring for community-living elderly with faecal incontinence, makes it understand that the studies about faecal incontinence are needed as the studies on that topic are very limited. More studies are found in the institution setting than in the community setting, whereas it is also needed to grab the understanding on how does the faecal incontinence managed in the community setting. The other consideration of the insufficiency of the study about faecal incontinence is most of

the studies were conducted in the high income countries such as Australia, but no one of the studies were conducted in the lower-middle countries. It shows that it is urgent to conduct such study in this topic.

8. Conclusion

The literature review has depicted the general findings of managing FI and how some caregivers deal with elder people and especially deal with people with FI in the community setting. Regarding to the ways managing FI, there is similarity measures applied in the nursing homes and in the community setting. Both of the setting use absorbent pads as the main way to manage FI, besides other measures were applied. Somehow, there also found that people do not apply various measures, only one measure that being used. This condition is caused by the lack of information they get from health profession.

In the experiences of the caregivers deal with the elder people, the enlighten idea is there is some challenges found that affects the caregivers. The impacts are more of the negative impacts to themselves. Caregiving practices, especially for the frail elderly with FI, affects the caregivers either physically, psychologically and socially as because the caregivers are someone that sacrifice their time a lot for care recipients. Nevertheless, there are insufficient researches about the experience of caregivers deal with people with incontinence were conducted. Likewise, no one of the studies captured the difficulties of caregivers when give care to the elder people with FI conducted in lower-middle countries such as Indonesia.

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