Original article

Patients' experience in the unnecessary use of absorbent continence products: a small experiential qualitative study

ABSTRACT

Objective To describe the lived experience of a small group of inpatients arising from the unnecessary use of absorbent continence products in a hospital in Bogotá, Colombia.

Method A qualitative and phenomenological study. Interviews were undertaken with consenting participants as well as participant observations until data saturation occurred. Subsequently, all data were transcribed and analysed based on Husserl's Methodology to derive themes and categories of the phenomenon seen.

Subjects and setting A selective sample of seven continent people without previous use of absorbent continence products and with mild disability, according to the PULSES profile, were recruited from the internal medicine service of a high complexity hospital in Bogotá, Colombia.

Results As a result of the data analysis, five themes or categories arose: getting into an unknown world; looking for care; submitting to using an absorbent continence product; my body's reaction to using an absorbent continence product; and adapting or trying to recover my independence.

Conclusions The lived experience of patients who were required to unnecessarily wear absorbent incontinence products while in hospital and the ensuing detrimental effect on their psychological and physical wellbeing are described. Health professionals, whilst under time and other constraints, need to understand the patients' perspective and their desire to maintain independence with their elimination needs when in hospital. The unnecessary use of absorbent incontinence products is not best practice, is not economical healthcare, and it potentially has adverse effects on the environment.

Keywords incontinence diapers, absorbent pads, nursing, life changing events, psychological wellbeing

For referencing Guerro Gamboa S & Ariza Garzón AV. Patients' experience in the unnecessary use of absorbent continence products: a small experiential qualitative study. WCET® Journal 2023;43(4):13-19.

DOI https://doi.org/10.33235/wcet.43.4.13-19

Submitted 12 June 2023, Accepted 25 September 2023

INTRODUCTION

Absorbent pads or incontinence diapers are sanitary products that are used for personal hygiene in the presence of urinary or faecal incontinence. Correct use of these products contributes to the containment and absorption of urine and faeces[1] by wicking fluids away from the skin[2]. Nevertheless, it is becoming apparent in some healthcare facilities that nurses are unjustifiably using these continence aids on continent people[3]. Even studies like Zisberg (2011) show the high tendency among hospital staff to use incontinence diapers in patients whose condition do not require such intervention[4].

Diaper use in older adults is associated with multiple adverse outcomes. For example, studies have found that diaper use: negatively influences self-esteem and perceived quality of life[4]; may lead to urinary or faecal incontinence[5]; increases dependency to carry out day-to-day activities[6]; and leads to the appearance of moisture-associated skin injuries[7–9] and pressure injuries or urinary tract infections[10] that complicate the patients' health status, or even cause their death[11]. The

Sandra Guerrero Gamboa
PhD MN ETN RN
Associate Professor, Faculty of Nursing, National University of Colombia, Bogotá, Colombia

Angie Viviana Ariza Garzón*
MN RN
National University of Colombia, Bogotá, Colombia
Email avarizag@unal.edu.co

** Corresponding author*

adverse effects impair the quality of the health system and generate financial impacts due to the additional costs and the increase in hospital stays for the treatment of the skin damage incurred[3]. Additionally, the use of absorbent pads generates waste that pollutes the ecosystem[12,13], and they can also pose additional medical expenses for the patient and/or their family[14,15]. Furthermore, they generate an increased burden of care for health personnel and/or family members due to the time and effort spent on changing absorbent products, hygiene and skin care[3].

Studies indicate that this practice is utilised due to a lack of assessment and nursing interventions, other than application of an incontinence pad[16]. A study by Zurcher et al. (2011) found that nursing records mentioned the use of absorbent products without documenting a prior assessment of urinary continence[17]. Other studies show that health personnel have beliefs that relate incontinence to ageing[16] and the use of diapers as the only hygiene treatment for the elderly[18]. They also mention the low use of elimination intervention strategies such as scheduled urination in nursing homes, a strategy that has more benefits compared to diaper use since it maintains continence, and promotes mobility and independence[15,19].

Although the literature describes many problems related to the wearing of unnecessary absorbent incontinence products, the effects associated with the quality of life and experiences of people have not been thoroughly studied. During her clinical duties, the researcher observed in diaper-wearing continent people feelings of revulsion, discomfort and dissatisfaction with the care provided. However, when examining the literature, few studies address these factors. One example is the study by Alves et al. (2013)[18] that describes nurses' perceptions of how users of diapers where there was no valid clinical indication for their use, evidenced mistrust, insecurity, stress, sadness and discomfort, among others. Study data is based only on the perception of nurses and does not document the patients' perspective.

The rationale for the current study therefore was to further investigate, explain and share continent patients 'lived experiences' of having to wear incontinence diapers or absorbent pads when they wished to be toileted whilst being treated as inpatients within a high-complexity hospital in Bogotá, Colombia.

METHODOLOGY

Research methods

A qualitative research technique was used to interview patients about their feelings of having to use incontinence diapers or absorbent pads as opposed to being assisted to the toilet to maintain their current state of urinary or faecal continence. The following questions were asked of patients recruited to the study:

1. How do you describe your experience when using a diaper?
2. What feelings has the diaper use generated in you?
3. What factors do you think influenced your experience regarding diaper use?

Data collection was carried out by pilot testing on two patients and was assessed using the Creswell criteria[20] to confirm the operation of the interview guide (Figure 1) and the aspects that could be improved to incorporate them into the data collection process[20].

The interviews were conducted by the researcher in a private place, and the data was collected via voice recordings and field notes that included information on non-verbal expressions[20]. During the session, the participant described their experience, additional questions were introduced to specify what they were reporting and, subsequently, the interview ended when data saturation was reached[20].

Selection and recruitment criteria

Selection criteria included continent people without previous use of absorbent pads or incontinence diaper products and without disability or with a mild disability according to the PULSES profile.

Seven participants were selected and recruited from an internal medicine service of a high-complexity hospital in Bogotá, Colombia. Recruited patients were informed of the research study's objectives, privacy and security measures and the option to withdraw at any moment without any compromise to clinical care provided. Written informed consent to participate in the study were obtained.

Sample size and data saturation

The sampling was theoretical (or purposeful) for the purpose of better understanding the issues central to the current study[21]. The interview was considered complete when the data collected described the phenomenon identified in the guiding questions and the total of interviews were adequate when data saturation occurred, that is to say, the data included enough information to replicate the study, no new information was being obtained in the interviews and further coding no longer deemed feasible[22].

Data analysis

The interviews were transcribed, stored and classified by a number to maintain patient anonymity. The tool used was ATLAS.ti program version 6.0 (2003–2010, ATLAS.ti Scientific Software Development GmbH, Berlin. Author: Dr Susanne Friese) for the organisation, coding and analysis of information[23]. Analysis was done according to Husserlian phenomenology since this allowed us to understand the lived experience of persons related to the phenomenon[24]. Fundamentally, this analysis directs nursing research away from personal preference, and directs it towards a purer return[25], it allows us to know the phenomenon as it is lived by a person[26] and produces an unbiased scientific knowledge that reinforces the principles and practices of nursing and contributes therefore to professional development[27].

In the study, a constant immersion in the data was carried out in order to understand what is happening[28]. The researcher of this study constantly evaluated herself to neutralise

Date: **Time:**
Interviewer: **Participant:**

INTRODUCTION

Your part in this research consist of filling in a form which corresponds to the socio-demographic data sheet, and answer one (or more) of the interviews; the objective is to know your experience relating to your use of the absorbing continence product.

The interview is semi-structured, it lasts around an hour and finishes when the information is known deeply (it is expected to be in one single session). However, if the researcher considers it necessary, she may be in contact with you again to clarify or complement the information, considering your time availability. The interview will take place in the hospital under controlled conditions, quiet and private. It will be audio recorded and the data will only be analysed by the researcher and her counsellor.

The information given by you will be kept under confidentiality, and not your name nor any other personal information will be used. To be part of this research you will not have to pay anything. In addition, neither you or any other people involved, will receive economic, social or labour benefits, not even political gain, as a reward for your participation. Your participation is at your free will and you have the right to withdraw when you wish to do so, without any kind of retaliation or discrimination.

1. SOCIO-DEMOGRAPHIC CHARACTERISTICS

1.1 Age: ____

1.2 Gender:
☐ Male ☐ Female

1.3 Occupation:
☐ Home ☐ Employee ☐ Other. Which one?

1.4 Marital status:
☐ Single ☐ Married ☐ Divorced
☐ Widowed ☐ Consensual union

1.5 Education:
☐ Primary school ☐ Secondary school ☐ University

1.6 Socioeconomic status:
☐ Upper class ☐ Middle class ☐ Low class

2. URINARY INCONTINENCE (UI) TESTING

To determine the number of patients that suffer UI and exclude them from the research, a testing procedure was carried out by using the following questions developed by the Association of Women's Health, Obstetric and Neonatal Nursing*:

2.1 Do you ever leak urine when you do not want to?

2.2 Do you ever leak urine when you cough, laugh or exercise?

2.3 Do you ever leak urine on the way to the bathroom?

2.4 Do you ever use pads, tissue or cloth in your underwear to catch urine?

Responses were either yes or no. Patients with at least one positive answer were considered to be incontinent of urine.

3. QUESTIONS

3.1 What is the cause of your hospitalisation?

3.2 How long have you been hospitalised?

3.3 Have you been alone or with a companion in the hospital?

3.4 What kind of activities do you do in the hospital?

3.5 Can you walk? Can you go to the bathroom on your own?

3.6 Before being admitted to hospital, did you wear diapers?

3.7 For how long have you wore diapers in the hospital?

3.8 Why (cause or reason) do you think you are wearing a diaper in the hospital?

3.9 How did you feel the first time you wore a diaper in the hospital?

3.10 How do you describe your experience when using a diaper?

3.11 What feelings has the diaper use generated in you?

3.12 What factors do you think influenced your experience regarding diaper use?

3.13 Can you urinate without any difficulty?

3.14 Have you ever tried to ask for the urine bowl in order not to have to use diapers?

3.15 Have you ever tried to ask someone to take you to the bathroom in order not to have to use diapers?

3.16 What happens when a diaper is unclean?

3.17 How has the nurses' behaviour been when they change your diaper?

3.18 How do you feel when they change your diaper?

3.19 How do you feel when you sleep with a diaper?

3.20 How many diapers do you use daily?

3.21 Who buys your diapers?

3.22 Do you think that you could use the bathroom to go to the toilet?

3.23 Do you see any difference between wearing diapers and toileting in the bathroom?

3.24 In which place would you feel better to go to the toilet?

3.25 Do you think you will use diapers once you are at home?

Figure 1. Interview guide

* Association of Women's Health Obstetric and Neonatal Nurses (AWHONN). Continence for women: evidence-based practice guideline. Washington, DC: National Guideline Clearinghouse; 2000.

preconceptions and not influence the object of study[26]. Based on participants' statements, meaningful references, text excerpts or descriptors, and nominal codes, categories to describe the phenomenon were created. A second researcher was involved in validating data that was transcribed, contributing to the accuracy of the data process. Each resulting category was compared to the original descriptions for validation purposes.

RESULTS

The study included seven continent people without a previous diagnosis of urinary or faecal incontinence and who had not previously used absorbent products or continence diapers. The average age of participants was around 74 years old and most were from a low socioeconomic background and had a low level of education. Upon further enquiry about reasons to use diapers, participants referred to having mobility difficulties to go to the bathroom, visual disability, dizziness, and alteration in lower extremities movements. All of them had a mild disability according to the PULSES profile and were able to go to the bathroom with assistance with walking or by using a walker device or a wheelchair.

From the data analysis, significant statements were identified, meanings were formulated and these were grouped in five common categories: getting into an unknown world; looking for care; submitting to using an absorbent continence product; my body's reaction to using an absorbent continence product; and adapting or trying to recuperate my independence. Further descriptors and patient experiences under these categories are provided below.

Getting into an unknown world

This category expresses the transition the patient experienced when they were admitted as an inpatient to the hospital and how the admission affected their elimination pattern. At home, patients can go to the bathroom in an independent, private and peaceful way but the situation changes when they are admitted to hospital. Going to the bathroom while in hospital is difficult due to their health situation and that is why they seek the accompaniment of health personnel. However, as they do not find support in these people, the only option that they receive is to relieve themselves in the diapers.

A continent person with mobility problems attempting to go to the bathroom, secondary to visual impairment, reports:

> *While I was here, at the hospital, it was when I had to use the diaper… When I entered, they did not ask me if I wanted, they did it without asking, they told me: You need a diaper; you must wear it... and I said: Alright. Let's do it... and since then I've been wearing the diaper. But it is better to go to the bathroom, it's more hygienic, to go to the bathroom, I have to ask for help because I see shadows, sometimes they assist me, but other times they are busy with other patients and I have to wait* – E6.

Looking for care

This category describes how these subjects tried to avoid diaper usage and decided to look for help to go to the bathroom. As provision of such assistance was not timely, and sometimes took hours, the patients' capacity to contain urine or faecal elimination was limited, and a sense of urgency occurred. In the desire to contain elimination needs, they also expressed suffering, shame, resignation, discomfort, insomnia, abdominal pain and bloating. These sensations subsided after elimination. In this category a person describes:

> *I had a thrombosis. This whole side became paralyzed (points to the right side of the body), (...) I'm already using the walker... but still, I cannot go to the bathroom alone. The thing is that I'm afraid of falling… When I must go to the bathroom, I call them and tell them: take me to the bathroom! but sometimes they don't have time... and (grunts)! (points to the abdomen and simulates pain). Last night, for instance, I had such horrible colic... it was because I asked them during two hours to come and take me to the bathroom and I was very hurried* – E2.

Although patients tried to wait, eventually they reached a point where they could not resist the urge to eliminate. They then resigned themselves to excrete in the absorbent pad/incontinence diaper and experienced a momentary sense of relief.

Occasionally, the nursing team takes care of their urge to go to the bathroom on time. Someone mentions:

> *I have gone to the bathroom to relieve myself. Normally a nurse assists me. Yesterday, she took me to the bathroom, she helped me to sit and be comfortable... She is attentive; takes care of me; she always says: What do you want? What do I do? They all are very attentive; when they assist us, they do it with so much affection* – E4.

Submitting to using an absorbent continence product

The category relates to those subjects who did not need to use diapers, but felt they 'had' to. They wanted to relieve themselves in the bathroom, but they did not receive any assistance despite insisting repeatedly to receive it. For that reason, they had to forgo their wants and decide to relieve themselves in absorbent pads/incontinence diapers. Over time, the patients stopped calling the nursing staff to be taken to the bathroom and they resigned themselves to wearing an absorbent pad/incontinence diaper. The patients feel at the mercy of the health personnel who have little time and are also experiencing a shortage of staff. As a result, this makes them feel restricted and vulnerable. The patients have made the following comments:

> *Well, I have to wear a diaper, but I don't need it… wearing a diaper is uncomfortable, but this is what I had to do. Regardless, I like to go to the bathroom and try to find someone who helps me, they just don't assist me* – E1.
>
> *I feel like an impediment to wear a diaper; it doesn't feel good… I feel dependent on the will of the people* – E6.

My body's reaction to using an absorbent continence product

This category describes the patients' expressed and unpleasant feelings about wearing an absorbent continence product.

They used terms such as: moisture; warmth, load; burning sensation; dirt, chafe or discomfort; and even the loss of sleep. Furthermore, they worried about expenses incurred by their families when they had to buy absorbent pads or incontinence diapers. Another issue they worried about was skin injuries due to diaper change delay. People made these comments about this category:

When I wear a diaper, I feel dirty… too warm; you try to sweat. Further, the diaper makes me feel annoyed, cold, wet; I feel bad. That's why I take it off or I tell the nurse to change it for me. I can last for hours with the diaper wet... and sometimes that produces some kind of peeling, scorching… that is annoying – E6.

Now I am burned… because they took too long to change my diaper; I burn completely, that's why they are putting ointment on – E7.

I feel that wearing a diaper alters my sleep. I feel uncomfortable and I can't rest properly because of the dampness – E4.

I think buying diapers affects me financially… Sometimes my husband has no money for diapers, and he has to borrow some money, then he comes and buys them – E2.

Adapting or trying to recover my independence

The category refers to how either patients adopted to the habit of relieving themselves in the absorbent pad or incontinence products without a clinical diagnosis of incontinence or other physical or reason to do so, just because there is no nursing assistance to enable them to go to the toilet. Other people persisted in avoiding the use of incontinent devices and tried to recover their independence by doing activities that helped them to mobilise or even going by themselves to the bathroom, increasing falls and injury risks. Some people mentioned:

I don't feel bad for wearing a diaper, one gets used to it… now I ask that they put the diaper on me… I like to go to the bathroom, but I ask to be placed (in the diaper) due laziness! – E6.

So when I go to the bathroom at least I walk a little bit, and also I kind of feel life as before. I want to go back to my old life, go to the bathroom, normal – E5.

I tried to go to the bathroom alone because sometimes assistants are busy with other patients. I always hit against walls because I do not see. Yesterday I went to the bathroom... they didn't even notice it – E6.

DISCUSSION

This small selective sample size qualitative study describes patients' experience of having to use absorbent pads/incontinence diapers without a valid clinical indication for their use as a shocking experience. In this study the patients felt obliged to use these types of devices because they had no other option, which generated negative consequences on a physical and personal level that could have been avoided.

Studies like Zisberg (2011) show the high tendency among hospital staff to use incontinence diapers in patients whose condition does not require such intervention[4]. This is due to the shortage of personnel, the lack of time to build better patient care planning[16], and the delegation of care to technical personnel without adequate supervision[18]. Within the hospital in which this study was held, a similar situation was found – nursing staff delegate the task of needs relating to elimination to the technician or ancillary staff and do not supervise the type of people who are being provided with diapers.

However, regardless of whether patients are continent or have the possibility of going to the bathroom with assistance, it is becoming increasingly common for health personnel to routinely use diapers for hygiene purposes in the elderly[18] or people with functional disabilities[15]. This occurs because health personnel do not assess continence, they associate urinary incontinence with ageing[18,29], and they believe that people with functional disabilities need to wear diapers[15].

This study also observed that at home patients can go to the bathroom in an independent manner; however, this situation changes when they are admitted to hospital since the only option they are given is to relieve themselves in a diaper. This is not best practice since continent people should use the bathroom. According to studies, even semi-dependent patients should not use a diaper to relieve themselves. On the contrary, they need to go to the bathroom to help stimulate their mobility and independence[15,30].

In this study the patients who felt an urge to go to the bathroom and needed nursing assistance to do so tried to resist the use of absorbent pads/incontinence diapers. However, as the hours went by without any nursing assistance, they had no other option but to give way and relieve themselves within the diapers. In the desire to contain elimination needs, they also expressed suffering, shame, resignation, discomfort, insomnia, abdominal pain and bloating. These sensations subsided after elimination. When searching the literature, no studies were found that describe in detail this resistance of continent patients to the use of a diaper. For this reason, the current study allowed a greater insight into patient experiences.

Furthermore, as outlined above, although patients tried to wait, eventually they reached a point where they could not resist the urge to eliminate. They then resigned themselves to excrete in the absorbent pad/incontinence diaper and experienced unpleasant sensations. They described discomfort and unpleasantness from being in prolonged contact with their faeces or urine. The feelings verbalised were ones of restlessness, frustration, hopelessness and in particular the loss of independence. They also felt uncomfortable with the sensation of humidity, heat and pressure in addition to effects on their skin such as burning and pain from dermatitis associated with incontinence. When examining the literature, few studies address these factors; however, some results are similar. One study is by Alves et al. (2013) that describes nurses'

perceptions of diaper users where there is no validated clinical indication for their use. The findings are distrust, insecurity, stress, sadness and discomfort, in addition to the loss of identity, dependency or fragility due the use of diapers[18]. In another study on the perception of hospitalised elderly people, they mention the feeling of discomfort, low self-esteem, revulsion, itching, pain, inefficiency, heat and motor restriction[6].

After being exposed to these sensations, some patients adopt the habit of relieving themselves in the absorbent pad or incontinence products. The study of Zisberg (2011) says that, even among continent patients, diaper use may be "addictive," at least in the short term, which may explain the behaviour of these patients[4]. On the other hand, other people persisted in avoiding the use of incontinent devices and tried to recover their independence by doing activities that helped them to mobilise or even going by themselves to the bathroom, increasing falls and injury risks.

The literature has similar results; however, there is little research, and this allows the current study to provide a greater insight into the patients' experiences of being forced into using diapers unnecessarily. This practice exposes patients to potential skin damage and psychological trauma that can mean a problematic or longer recovery time[31]. People who are continent of urine seek nursing assistance to go to the bathroom and maintain their level of independence. However, this study found that on most occasions they do not get support from these people and the only option that they receive is to relieve themselves in the diapers.

In these cases, the absorbent pad is used unnecessarily and can be replaced by other methods. According to Jonasson et al. (2016), there is a need to move towards a more person-centred approach as far as possible[16], using methods such as scheduled assistance when going to the bathroom to help to strengthen mobility, improve autonomy and independence[30,32], and maintain health and wellbeing[16].

For these methods to be implemented by hospital staff, a change in practice is necessary. A study by Bernard et al. (2020) outlines how nurse educator and administration support can contribute to reduce diapers use to improve the patient care experience. Nurse educators can teach proper toileting, explain how to assess the patients' continence and how to use the patients' toileting schedules, and select appropriate collection/containment devices. Also, administrative support contributes to the implementation of programs and protocols on best practices in continence care, restricts the use of absorbent pads, increases the availability of optional urinary/faecal containment devices and provides tools to support toileting, such as adequate facilities and nurses and physiotherapists trained in continence management[33].

CONCLUSIONS

The results of the study show that the Colombian health system does not always respond efficiently to the clinical needs of patients with mild disabilities to maintain independence with urinary and faecal continence. The provision of assistance nursing was not timely and forced patients to wear diapers unnecessarily and involuntarily, which undermined self-confidence, patient safety, and caused physical and psychological consequences. There were also economic implications that affect the family and health institutions with the increase in treatment costs. This study shows how health institutions do not always consider physical and social functionality and the preference of users regarding their elimination needs, thereby generating dissatisfaction, discomfort, vulnerability and loss of dependency.

In this sense, phenomenological studies such as this one are a window for reflection and a path to achieve a better quality of care[34]. Health professionals, whilst under time and other constraints, need to understand the patients' perspective and maintain independence regarding their elimination needs when in hospital. That is why individualised holistic care[16] is needed to offer care beyond the usual care procedures, considering the priorities and elimination needs of patients.

Limitations

This research study had a very small theoretical sample size. Therefore, the results of the study should not be generalised to all health facilities. More research is needed on this phenomenon.

ACKNOWLEDGEMENTS

We would like to thank all the study participants for their cooperation.

CONFLICT OF INTEREST

There are no conflicts of interest to declare.

ETHICS STATEMENT

This study was endorsed by the Faculty of Nursing Ethics Committee, National University of Colombia: approval (021-18) and the Research Ethics Committee in health facility, approval (119/18).

FUNDING

The authors received no funding for this study.

REFERENCES

1. Qin Y. Medical textile materials. Woodhead Publishing; 2015.
2. De Sousa Lopes Reis Do Arco HM, Mendes da Costa A, Machado Gomes B, Anacleto N, Jorge da Silva RA, Peixe da Fonseca SC. Nursing interventions in dermatitis associated to incontinence integrative literature review. Enfermería Glob 2018;17(52):689–730.
3. Palese A, Regattin L, Venuti F, et al. Incontinence pad use in patients admitted to medical wards: an Italian multicenter prospective cohort study. J Wound Ostomy Cont Nurs 2007;34(6):649–54.
4. Zisberg A. Incontinence brief use in acute hospitalized patients with no prior incontinence. J Wound Ostomy Cont Nurs 2011;38(5):559–64.
5. Zisberg A, Sinoff G, Gur-Yaish N, Admi H, Shadmi E. In-hospital use of continence aids and new-onset urinary incontinence in adults aged 70 and older. J Am Geriatr Soc 2011;59(6):1099–1104.

6. de Almeida Ferreira Alves L, Ferreira Santana R, da Silva Schulz R. Nursing staffs' perceptions of the use of adult diapers in hospital. Rev Enferm UERJ 2014;22(3):371–75.
7. Fader M, Clarke-O'Neill S, Cook D, Dean G, Brooks R, Cottenden A, Malone-Lee J. Management of night-time urinary incontinence in residential settings for older people: an investigation into the effects of different pad changing regimes on skin health. J Clin Nurs 2003;12(3):374–86.
8. Brown D. Diapers and underpads. Part 1: skin integrity outcomes. Ostomy Wound Manage 1994;40:20–22.
9. Fader M, Bain D, Cottenden A. Effects of absorbent incontinence pads on pressure management mattresses. J Adv Nurs 2004;48(6):569–74.
10. Christini Silva T, Mazzo A, Rodrigues Santos RC, Jorge BM, Souza Júnior VD, Costa Mendes IA. Consequences of adult patients using disposable diapers: implications for nursing care. Aquichan 2015;15(1):21–30.
11. Beeckman D, Van Lancker A, Van Hecke A, Verhaeghe S. A systematic review and meta-analysis of incontinence-associated dermatitis, incontinence, and moisture as risk factors for pressure ulcer development. Res Nurs Heal 2014;37(3):204–18.
12. Thompson E, Rounsefell B, Lin F, Clarke W, O'Brien KR. Adult incontinence products are a larger and faster growing waste issue than disposable infant nappies (diapers) in Australia. Waste Manage 2022;152:30–7.
13. Ntekpe ME, Okon E, Ndifreke E, Hussain S. Disposable diapers: impact of disposal methods on public health and the environment. Am J Med Pub Health 2020;1(2):1–7.
14. Bitencourt G, Santana R. Evaluation scale for the use of adult diapers and absorbent products: methodological study. Online Braz J Nurs 2021;20:1–13.
15. Bitencourt GR, Alves LAF, Santana RF. Practice of use of diapers in hospitalized adults and elderly: cross-sectional study. Rev Bras Enferm 2018;71(2):343–49.
16. Jonasson L, Josefsson K. Staff experiences of the management of older adults with urinary incontinence. Health Aging Res 2016;5(16):1–11.
17. Zurcher S, Saxer S, Schwendimann R. Urinary incontinence in hospitalised elderly patients: do nurses recognise and manage the problem? Nurs Res Prac 2011;1–5.
18. Alves L, Santana R. Perceptions of the nursing team about the use of geriatric diapers in the hospital. Ciênc Cuid Saúde 2013;12(1):19–25.
19. Roe B, Flanagan L, Jack B, et al. Systematic review of the management of incontinence and promotion of continence in older people in care homes: descriptive studies with urinary incontinence as primary focus. J Adv Nurs 2011;67(2):228–50
20. Hernández Sampieri R, Fernández Collado C, Baptista Lucio M. Metodología de la investigación científica. 5th ed. Mexico: McGraw-Hill Interamericana; 2020.
21. Coyne IT. Sampling in qualitative research. Purposeful and theoretical sampling: merging or clear boundaries? J Adv Nurs 1997;26(3):623–30.
22. Fusch P, Lawrence N. Are we there yet? Data saturation in qualitative research. Qual Rep 2015;20(9):1408–16.
23. San Martín Cantero D. Grounded theory and ATLAS.ti: methodological resources for educational research. Rev Electrónica Investigación Educativa 2014;16(1):104–122.
24. Bahadur S. Phenomenology: a philosophy and method of inquiry. J Educ Educ Dev 2018;5(1):215–22.
25. Schultz G, Cobb-Stevens R. Husserl's theory of wholes and parts and the methodology of nursing research. Nurs Philos 2004;5(3):216–23.
26. Neubauer B, Witkop C, Varpio L. How phenomenology can help us learn from the experiences of others. Perspect Med Educ 2019;8(2):90–7.
27. Cuesta Benjumea C. Qualitative research and development of nursing knowledge. Texto Contexto Enferm 2010;19(4):762–68.
28. Maher C, Hadfield M, Hutchings M, Eyto A. Ensuring rigor in qualitative data analysis: a design research approach to coding combining NVivo with traditional material methods. Int J Qual Method 2018;17:1–13.
29. Rodriguez N, Sackley C, Badger F. Exploring the facets of continence care: a continence survey of care homes for older people in Birmingham. J Clin Nurs 2007;16(5):954–62.
30. Jirovec M. The impact of daily exercise on the mobility, balance and urine control of cognitively impaired nursing home residents. Int J Nurs Stud 1991;28(2):145–51.
31. Alligood R, Tomey M. Nursing theorists and their work. 7th ed. Spain: Mosby Elsevier; 2010.
32. Schnelle J, Alessi C, Simmons S, Al-Samarrai N. Translating clinical research into practice: a randomised controlled trial of exercise and incontinence care with nursing home residents. J Am Geriatr Soc 2002;50(9):1476–83.
33. Bernard L, Stephens M, Kuhnke J L. Prevention of incontinence-associated dermatitis linked with briefs use in acute care: a quality improvement project. NSWOC 2020;31(2):28–37.
34. Palacios D, Corral I. The basics and development of a phenomenological research protocol in nursing. Enferm Intensiva 2010;21(2):68–73.