

Effect of Pressure Injury Prevention Training Program on Caregiver's Knowledge, Attitude, and Practices in Selected Geriatric Care Homes

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Abstract:

Background: Pressure injuries are a common and frustrating problem affecting the elderly in geriatric care home settings. Lack of caregiver knowledge and practices about pressure injury prevention contributes significantly to the occurrence or worsening of pressure injuries. **Aim:** This study aims to evaluate the effect of the pressure injury prevention training program on caregivers's knowledge, attitude, and practices in selected geriatric care homes. **Methods:** A quasi-experimental design was applied to 50 caregivers providing care in three private geriatric home care in El Sheikh Zayed City, (Malak El-Kheer, Malak EL-Rahma, and El-Jasmine). **Tools:** Two tools were used: (I) An interviewing questionnaire for the caregiver's demographic characteristics, caregiver's knowledge, and attitude towards pressure injury prevention. (II) Observation checklist for therapeutic repositioning among immobilized elderly. **Results:** The present study revealed that: the mean caregivers' s ages were 33.26 ± 4.20 , and (70%) of them were females, additionally, the total percentage score levels of satisfactory knowledge and positive attitude were (54%) and (47%) pre-program, respectively, compared to (86%) and (95%) post-program with a statistically significant difference, as ($X^2 = 10.33$, and $X^2 = 11.005$, $p = 0.000$), also, there is an improvement in the total percentage score levels of satisfactory observed practice of therapeutic repositioning of immobilized elderly among studied caregiver's pre-program was (34%) compared to post-program (92%) with a statistically significant difference, as ($X^2 = 11.75$, $p = 0.016$). **Conclusion:** Applying a pressure injury prevention training program for elderly caregivers significantly improved the knowledge, attitude, and practices of the studied caregivers in the geriatric care homes. **Recommendations:** The necessity for constant training programs for elderly caregivers in elderly home care settings regarding pressure injury prevention knowledge, attitude, and practices for achieving competence in caring for elderly residents.

Keywords: Attitude, caregivers training, geriatric homes. Pressure injuries, knowledge, practices, Preventive measures.

Introduction

Pressure injuries are a serious health problem worldwide. Once they develop, they become difficult to treat, pressure injuries are commonly called, bed sores, or pressure ulcers, decubitus ulcers, or bed injuries (Sugathapala et al., 2023). Pressure injuries are defined as "localized damage to the skin and underlying soft tissue usually over the body bony prominence (European Pressure Ulcer Advisory Panel, 2019), the evidence on the epidemiology of pressure injuries among older adults living in geriatric homes is limited, whereas the highest prevalence occurs in long-term care facilities as nursing homes or geriatrics care homes (Borojeny et al., 2020).

Mortality rates from pressure injuries are 2 to 6 times as much as from other diseases, with 60,000 deaths annually due to its complications (Sugathapala et al., 2023), additionally, the cost of treating these mainly preventable injuries in the United Kingdom accounts for about 4% of the total national health service expenditure (Borojeny et al., 2020).

The prevalence and the risk of pressure injuries peak among the elderly between ages 70 and 80 years old with a high mortality rate due to associated secondary complications (Anthony and Safari, 2019).

According to a report by the Central Agency for Public Mobilization and Statistics, the elderly population in Egypt is estimated to

reach 10.9% in 2026 and raised to 12% by 2030 (CAPMS Report, 2017). In Egypt, the elderly are used to aging in their places with their own families, But these customs might occasionally clash with the needs of modern life. Social changes in today's world have led to changes in family care, including the moving of children into separate apartments following marriage, migration within or outside the country in search of better living conditions, the presence of working women, and a decline in the number of children available to care for the elderly (Sweed, 2016). Due to these changes, caring for older adults by family members has become more difficult to manage and has increased the need for extra- support. As a result, care options such as nursing homes and geriatric care have emerged for older adults who require care that cannot be provided by their family members alone (El-Taweel, 2022) because of this need Egypt's Ministry of Health and Population, 2015, established around 80 geriatric homes nationwide (CAPMAS, 2017) besides the privet nursery home care.

Age-related changes, skin changes, and other factors such as a decrease in the healing process affect such injuries (Waird and Monaro, 2021) and reduced mobility, cognitive impairment, inability to move independently, prolonged pressure over bony prominences, malnutrition, urinary and fecal incontinence multiple co-morbidities, and polypharmacy (Esparza et al., 2021), a combination of factors exists besides the level of skin exposure to moisture, predispose many elderly populations to develop pressure injuries (Sugathapala et al., 2023).

Six categories, from stages I to IV, plus two more categories (suspected deep tissue injuries and un-stageable) (European Pressure Ulcer Advisory Panel, 2019), such conditions are associated with painful sensation, reduced elderly autonomy, increased risk of infection and sepsis, additional this may expose the elderly to surgical intervention with an extended hospital stay, which increases costs on the patient, and health care system (Pesantez et al., 2022).

Caregivers in geriatric care homes fulfill a multitude of responsibilities, such as

providing care, and health requirements, and assisting the elderly who are unable to manage all aspects of their daily needs independently due to aging, illness, or physical limitations (Kunkle et al., 2020). Lack of caregiver knowledge and practices related to pressure injury prevention contributes significantly to the occurrence or worsening of pressure injuries (Esparza et al., 2021).

Training programs play a pivotal role in enhancing the knowledge attitude, and practice of caregivers as encouraged for geriatric home caregivers who play a key role in preventing pressure injury among the elderly (Farzan et al., 2023). Understanding the disease process and prophylactic methods had an impact on the reduction of pressure injuries by manipulating certain factors and developing effective prevention plans that could prevent pressure injuries (Waird & Monaro, 2021).

Significance of the Study:

Pressure injuries are the third most costly disease after cancers and cardiovascular diseases (Sugathapala et al., 2023). In Egypt, statistics about the incidence or prevalence rate of pressure injuries among immobilized patients to our knowledge are lacking, so only one study in 2009 according to statistics from a health insurance organization in Alexandria, indicates that pressure injuries ranged from 40% to 50% among the elderly population (Abou El Enein & Zaghoul 2011).

Caregivers play a fundamental role in caring for the elderly, however, their knowledge, practice, and needs in identifying the care of the elderly have been poorly characterized (Ibrahiem and Abd El-Maksoud, 2021). Therefore, caregiver's knowledge about pressure injury prevention is essential for effective prevention, and avoiding complications, (Pesantez et al., 2022), which could lead to an increased mortality rate if not treated effectively. Therefore, equipping caregivers with the knowledge, positive attitudes, and practices for preventing pressure injuries is an important component of preventive care for the elderly (The National Pressure Ulcer Advisory Panel guideline, 2019).

Aim of the Study: The current study aimed to evaluate the effect of the pressure injury prevention training program on caregivers's knowledge, attitude, and practices in selected geriatric care homes, through the following:

- Assess caregivers' knowledge, attitude, and practices about pressure injury prevention to determine their training needs.
- Plan and implement a training program for caregivers on pressure injury prevention according to their needs.
- Evaluate the effect of the pressure injury prevention training program on caregivers at the studied geriatric homes.

Research Hypothesis:

Applying a pressure injury prevention training program will positively affect caregivers' knowledge, attitude, and practices in selected geriatric care homes.

Operational definitions:

Caregivers: These are paid caregivers who assist elderly people with their daily needs, provide health care, and have a work schedule, their care responsibilities are specified according to their professional qualifications for the activity of care.

The immobilized elderly and bedridden patients: These are patients who are unable to move out of bed or unable to move in bed or change his/her position due to old age, physical impairment, mobility problems, illness, or injury, or arising from medical restrictions to ambulate without assistance so he/she is at high risk for pressure injury development.

Geriatric care home: This was used to cover these various terms of residence for old adults and old adults residing in these facilities are often referred to as residents.

Subjects and Methods:

I. Technical Design:

Research design:

A quasi-experimental design with one group pre- and post-program was utilized in this study.

Settings:

This study was conducted in three private geriatric homes care in El Sheikh Zayed City, they were chosen randomly, (Malak El-Kheer, Malak EL-Rahma, and El-Jasmine) which represent half of the total number of geriatric homes in El Sheikh Zayed City, at the time of the study.

Subjects and sample size:

A convenient sample of 50 caregivers consisted of all formal and informal caregivers in the selected geriatric home care.

Inclusion criteria:

Caregivers from both sexes, working full-time or part-time and having a role and responsibility concerned with direct elderly care.

Tools of Data Collection: Two tools were used to collect data:

Tool I: An interviewing questionnaire for:

Part I: Caregiver's Demographic Characteristics developed by the researchers assessed the caregiver's demographic characteristics; it included, multiple-choice closed-ended items about personal characteristics such as age, gender, education, previous occupational experience in geriatric caring, previously received training in pressure injury prevention, sources of knowledge, and recent exposure to elderly suffer from pressure ulcers. Arabic version questionnaire was used, and the data collection tools were developed by reviewing different literature.

Part II: Caregiver's Knowledge Regard Pressure Injuries, developed by Beeckman et al., (2010), to assess caregiver's knowledge about pressure injuries, consisting of 26 multiple choice questions divided into 7 parts: **Skin changes** in the elderly, **definition and causes** of pressure injuries, **sites** of pressure

injuries, **stages** of pressure injuries development, **methods** of pressure injuries prevention, **pressure-relieving devices**, and event-based **repositioning** to prevent pressure injuries.

Scoring system

Each question had one score for the correct response and zero for the incorrect response. The total score ranged from 0-26 and it was covered into percentages. A score of <60% was considered unsatisfactory knowledge and $\geq 60\%$ score was considered satisfactory knowledge.

Part III: Attitude towards Pressure Injuries Prevention questionnaire, adapted from Florin et al., (2016). It includes five factors, competence to prevent pressure ulcers (three items), priority of pressure ulcer prevention (five items), impact of pressure ulcers and responsibility in pressure ulcer prevention (two items), and effectiveness of prevention (three items).

Scoring system

The maximum possible score is 52, the higher scores indicating a more positive attitude, and the mean attitude score of $\geq 75\%$ of the highest possible score was considered as a positive attitude, and < 75 is considered as a negative attitude.

Tool II: Observation Checklist for therapeutic repositioning of the immobilized elderly, developed by Burkett, 2014, was adapted from the event-based therapeutic repositioning protocol to assess caregivers' practices during repositioning immobilized elderly patients. It consisted of 15 items covering 5 parts: skin assessment, event-based repositioning, therapeutic positioning, pressure-relieving surfaces, and repositioning obese elderly residents.

Scoring system:

Each item scored 2 for done correctly and completely, one score for done incorrectly or incompletely, and zero for not done or not applicable, A score $\geq 75\%$ was considered

satisfactory practice and a score <75% was regarded as unsatisfactory practice.

Validity and Reliability

The content validity of the instrument was carried out by three experts from the gerontological nursing field. The Cronbach's Alpha coefficient test revealed that each of the four tools consisted of relatively homogenous items as indicated by the moderate to high reliability of each tool, where the reliability of them was estimated as 0.81.

Ethical considerations

Approval was obtained from the Ethics Committee of Misr University for Science and Technology. Maintained privacy and confidentiality of data and obtained participants' consent for participation in the study after explaining the purpose of the study to them.

Pilot study

The pilot study was applied to 10% of the caregivers to estimate the time needed for each tool and test its applicability. The pilot study was included in the sample as few modifications were required.

Fieldwork

After obtaining the legal approvals from the authorized administration of the studied settings, data collection and program delivery were carried out from the beginning of February 2023 to the end of May 2023. The researchers introduced themselves and briefly explained the study objectives to the caregivers. The researchers visited the selected settings 3 days per week and completed the subsequent items of the established tools that lasted from 30 min to 45 min for each subject included in the study.

The training program construction contained 3 phases:

Phase I: Preparatory phase, by preparing the assessment tools after review of the related

literature. The training program was planned after assessment of the participant's needs, to cover the knowledge and attitude of caregivers for preventing pressure injuries among elderly residents at the selected geriatric homes. The researchers started by introducing herself, and the purpose of the study was explained briefly. Then, the pre-training program data were collected from each caregiver using the questionnaire tool and subjected to statistical analysis.

Phase II: Develop and implement the training program, based on caregivers' identified needs and the training program's general objective to improve caregivers' knowledge, and attitude regarding pressure injuries prevention in the selected geriatric homes.

The training program was composed of 4 sessions:

The first session: To explain the objectives, and deliver the pre-program questionnaire, and pre-program observational checklist.

The second session: To deliver the theoretical contents covering (age-related changes of the skin, definition of the pressure injuries, causes, signs, sites, stages, and evidence-based methods for prevention of pressure injuries). Open discussions were used during sessions, and videos, and photos were used.

The third session: To deliver the practical content covering (comprehensive correct and safe skin assessment that includes changes in skin color, and texture, the techniques for identifying the blanching response, localized heat, edema, therapeutic positioning, and repositioning bedridden residents, and pressure-relieving surfaces). Participated caregivers are divided into small groups (5 caregivers in each group), and a part of the practical session takes place in old adult's rooms. Every session contained training videos for practical skills. A training brochure was used during the teaching and a copy of the same content was left with every caregiver, and more brochures were left for the administrators of the geriatrics home under the study as a reference.

PowerPoint presentations, and demonstrations; were used also, and booklets were given to participants after each session.

Phase III: Evaluation was done two months after delivering the training program, by using the same questionnaire that had been administered during the assessment session. In the evaluation phase comparison was made between the result of the assessment phase and the result of the post-program implementation, to evaluate the effect of the training program.

Statistical analysis

The data were organized and tabulated then statistical analysis included number (N), Data was entered and analyzed by using SPSS (Statistical Package for Social Science) statistical package version 23. Mean and standard deviation were done. A Pearson chi-square (P-value) <0.05 indicates no significant result, while a Pearson chi-square (P-value) >0.05 indicates a significant result.

Results

Table 1 displayed the caregivers' mean ages which were 33.26 ± 4.20 , (70%) of them were females, regarding years of experience (54%) of the studied caregivers had less than five years of experience in elderly caregiving, with a mean of 11.6 ± 1.3 years. It could be noticed from **Figure (1)** that about (86%) of the caregivers under the study had a diploma, meanwhile, (8%) of them read and wrote while only (6%) had bachelor's degrees.

Furthermore, **Figure (2)** revealed that (76%) of the studied caregivers reported that their source of knowledge was their colleagues in the geriatrics home, and (94%) of them did not receive any training regarding pressure injury prevention.

According to the study hypothesis, the training program will positively improve studied caregivers' knowledge, practice, and attitude regarding pressure injury prevention among the elderly. **Figure (3):** Indicates that there is an improvement in the total percentage score levels of knowledge pre-program (54%) compared to post-program (86%) with a highly

statistically significant difference, as ($X^2=10.33$, $p=0.00$) at $p. = < 0.001$.

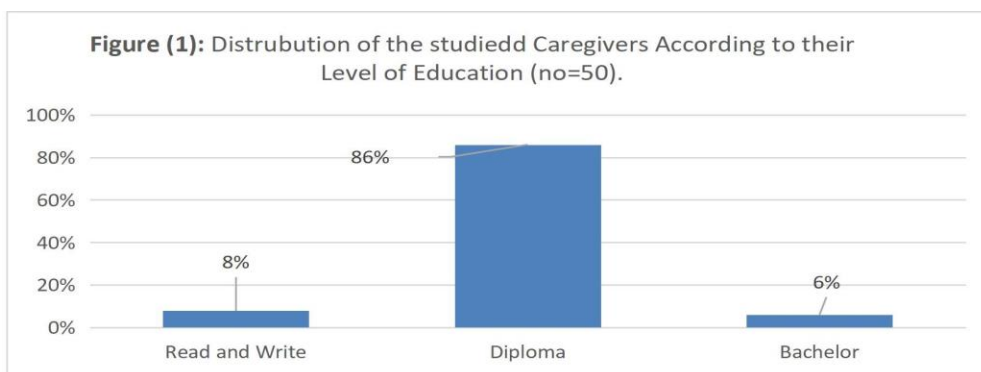
Figure (4), shows that there is an improvement in the studied caregiver's positive attitude towards pressure ulcer prevention pre-program implementation (47%) compared to post-program implementation (95%) with a statistically significant difference, as ($X^2=11.005$, at $p= 0.000$).

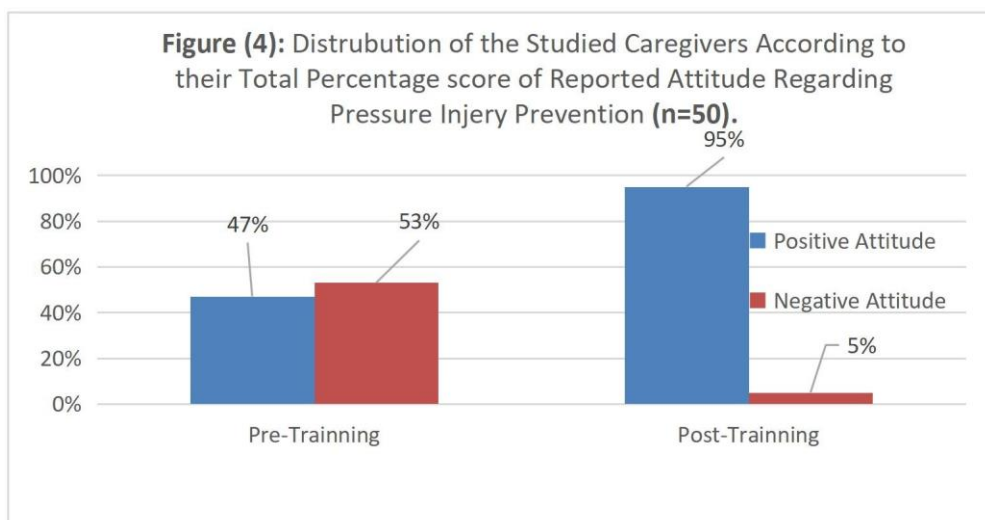
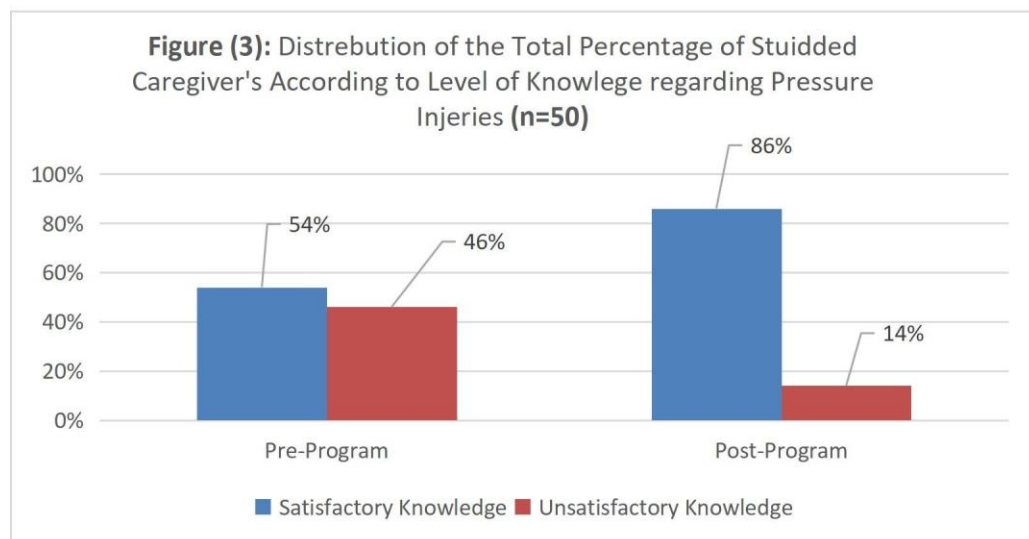
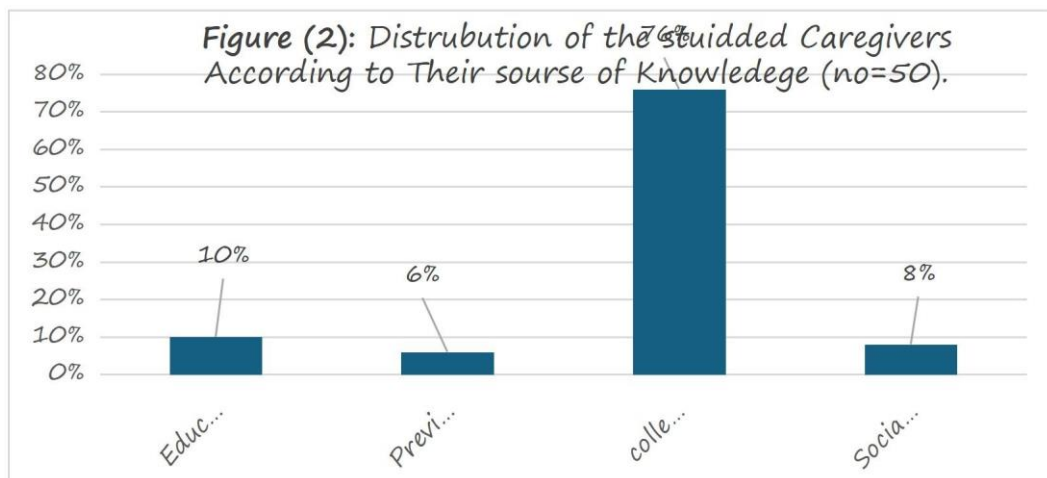
Figure (5), portrays an improvement in the total percentage score levels of studied caregivers' satisfactory observed practice regarding the therapeutic repositioning of immobilized elderly pre-program (34%) compared to post-program (92%) with a statistically significant difference, as ($X^2=11.75$, $p= 0.016$) at $p. value= < 0.001$.

Table 1: Distribution of the Studied caregivers According to their Demographic characteristics (n=50).

Caregivers' characteristics	No.	%
Gender:		
Female	35	70.0
Male	15	30.0
Age:		
17: <20	6	12.0
20: <36	34	68.0
36: <46	7	14.0
46: ≤ 55	3	6.0
Mean Age ± SD	33.26 ± 4.20	
Years of clinical experience:		
2 - 5 years	27	54%
> 5-10 years	16	32%
More than 10 years	7	14%
Mean ± SD	11.6±1.3	

Table 2, Indicates a statistically significant improvement in the total mean score of knowledge, attitude, and observed practice of the studied caregivers pre-implementation of the training program compared to post-training, where the total mean scores of the studied caregiver's pressure injuries knowledge was 16 ± 3.1 pre-training and improved to 22.5 ± 3 post-training as ($t.test = 8.9$, $p=0.00$). Also, it is evident from the same table that the total mean scores of the studied caregiver's pressure injuries positive reported attitude was 31.68 ± 11.14 , pre-training improved to 40.23 ± 10.79 , post-training as ($t.test= 2.081$, $p=0.04$), additionally, the satisfactory mean score of the studied caregivers' observed practice of bedridden elderly repositioning was 17.48 ± 2.9 pre-training improved to 27.28 ± 3.14 , post-training as ($t.test= 21.65$, $p=0.00$).





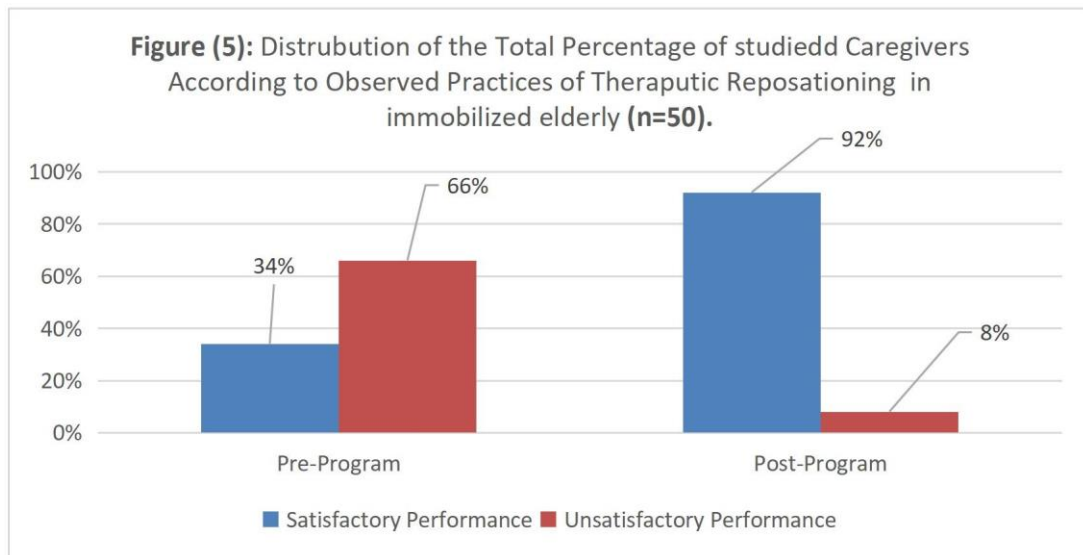


Table 2: Distribution of the studied Caregivers According to Mean and standard deviation of total scores of their Pressure Injuries knowledge, positive reported attitude, and Satisfactory Observed Practices of Bedridden Elderly Repositioning (n = 50).

Items	Pre-Program M ± SD	Post-Program M ± SD	Paired t.test	P-Value
Caregiver's Total Knowledge Score (0-26).	16±3.1	22.5±3	8.9	0.001
Caregiver's Total attitude score (0-52).	31.68 ±11.14	40.23 ± 10.79	2.081	0.044
Observed practices of repositioning (15-30).	17.48 ±2.9	27.28±3.14	21.65	0.000

paired t-test, p<0.05: statistically significant.

Discussion

Pressure injuries are a common problem among the elderly in acute and long-term care facilities such as geriatric care homes, pose a significant burden on the elderly caregivers, and significantly limit many aspects of an elderly's well-being, including general health, physical, social, financial, and psychological well being as the effect of it may extend to loss of life (Sugathapala et al., 2023). It has been estimated that the cost of treating pressure injuries is 2.5 times higher than the cost of its prevention (Borojeny et al., 2020). The demand for caring is expected to increase globally as people live longer, primarily due to chronic illnesses, The health and economic results of the rapid growth of the older adult population above

60 years old have led to new and more adaptable forms of care, including home-based care. In Cairo, Egypt, a study done by (Awad and Hewi, 2020), reported that nowadays, caregivers primarily support the elderly in geriatric care homes with daily tasks providing a variety of elderly care services that were previously only available from medical professionals (Mayhob and Amin, 2021).

According to the demographic characteristics of the studied caregivers, the current study displayed that the caregivers' mean ages were 33.26 ± 4.20, and about two-thirds of them were females, these results go with the findings of a descriptive study done by Mohammed et al., 2022, on 60 elderly caregivers, which conducted to assess their

knowledge and practices regarding elderly care among elderly caregivers at seven geriatric homes in Cairo city, who reported that 71.7 % of the studied caregivers were females with mean ages 38.53 ± 9.79 . Also, more than two-thirds of caregivers under the current study were nurse's assistants caregivers, or helpers this may be due to the shortage of nurses staff in most of the medical facilities, and geriatrics care homes besides the low salaries of nurse's assistants compared to the salary of graduated nurses. Additionally, the finding is in agreement with the finding of a descriptive study done by **Elebiary et al., 2018**, in one of the geriatric healthcare settings in the Kingdom of Saudi Arabia, they found that 71% of the nurses were undergraduate nurses.

Regarding years of experience, The present study results illustrated that more than half of the studied caregivers had less than five years of experience in elderly caregiving, with mean years of experience (11.6 ± 1.3), and more than two-thirds (86%) of the caregivers under the study had a diploma, while less than one-tenth of them (6%) had a bachelor's degree. To our knowledge, this may be because there was an immediate and strong need for elderly caregivers, in the work field. These results are in the same line with a cross-sectional study done by **Yenişehir et al., 2019**, which was conducted in three nursing homes in Turkey, to assess geriatric caregivers' knowledge and practice regarding a health problem, they found that 88.8% of the caregivers were nurse assistants, and 11.2% were nurses, the caregiver's mean years of experience was 8.7 ± 5.7 years and 11.7% of the caregivers had a university degree.

Furthermore, the current findings revealed that more than two-thirds of the studied caregivers reported that their source of knowledge was their colleagues in the geriatrics home, and almost most of them did not receive any training on pressure injury prevention. From the researchers's point of view, this is because there was no definite prerequisite training for elderly caregivers. These results were contrary to the findings of a descriptive study done by **Lee and Lee, 2022** who conducted a study at four long-term care facilities in Korea, which included 165 caregivers, aimed to investigate the pressure

injury-related knowledge, attitude, and care practiced by the caregivers working at long-term care facilities and determine the impact of pressure injury prevention knowledge and attitude on care practice, they found that 17% of the studied caregivers did not receive any training regarding pressure injury.

According to the study hypothesis, the training program will positively improve studied caregivers' knowledge, practices, and attitudes regarding pressure injury prevention among the elderly. **Figure (3)**: Indicates that there is an improvement in the total percentage score levels of knowledge post-program (86%) compared to pre-program (54%) with a statistically significant difference, as ($X^2 = 10.33$) at p . value= $P < 0.001$. The researchers believed that there was no prerequisite informal training for caregivers. However, this kind of labor-intensive development eventually results in caregivers providing less quality nursing care.

This finding was similar to what was reported by **Alhammadi and Ogale, 2020**, in a quasi-experimental study conducted on 45 elderly caregivers in geriatric home settings, in Kuwaiti aimed to study the effectiveness of caregiver training program in the prevention of pressure injuries among the elderly, who reported that (74 %) of the home caregivers had poor total knowledge percentage score, at pre-training program improved to 100% satisfactory total knowledge percentage score, post-training program with a statistically significant difference.

Figure (4), showed that near half of the studied caregivers had positive attitude levels pre-program implementation which improved for most of them post-program implementation, with a statistically significant difference, as ($X^2 = 11.005$, $p = 0.000$), with p . value= < 0.001 , this result is in the same context with the finding of a study done by **Awad and Hewi, 2020**, who examine the effect of pressure injuries preventive interventions on knowledge, practices, and attitude of nurses caring of geriatric patients in Alexandria, Egypt, and reported that 67.5% of the study subjects had a negative attitude toward pressure injury prevention pre-training, improved to be 77.5 % of positive attitude with a total mean attitude score (91.83 ± 11.54) post-training with a statistically significant difference.

Figure (5), displayed that there is an improvement in the total percentage score levels of studied caregivers' regarding their observed practices of therapeutic repositioning among the immobilized elderly pre-program as nearly one-third of them compared to post-program which the improvements noted among most of the studied caregivers with a statistically significant difference, as ($X^2 = 11.75$, $p = 0.016$) at p . value = < 0.001 . This may be due to the absence of evidence-based guidelines for any procedures in all the studied geriatric care homes.

These results are in the same line with the findings of a quasi-experimental study done by **Mersal et al., 2017**, who conducted a study that included 45 caregivers, aimed to evaluate the effect of structured educational guidelines on caregivers' knowledge and practices regarding the prevention of bedridden complications, and found that (24.4%) of the study caregivers had adequate total practices percentage before the educational guidelines while this percentage increased to (80%) of the proper total practices, after the educational guidelines with a statistically significant difference.

Lastly, it could also be observed from **Table 2**, a statistically significant difference between the total mean score of knowledge, attitude, and observed practices of the studied caregivers pre-training compared to post-training, where the total mean scores and standard deviation of the studied caregiver's pressure injuries knowledge were 16 ± 3.1 pre-training improved to 22.5 ± 3 post-training at t .test = 8.9, also the same table indicated a positive reported attitude 31.68 ± 11.14 pre-training, improved to 40.23 ± 10.79 post-training, at t .test = 2.08. Additionally, there is an improvement in the satisfactory total mean scores of caregivers' observed practices regarding bedridden elderly repositioning 17.48 ± 2.9 pre-training improved to 27.28 ± 3.14 , post-training at t .test = 21.65. This may explain the necessity for further exploration of the issue of poor knowledge, attitudes, and practices among elderly caregivers. This finding is comparable to a quasi-experimental study carried out by **Ibrahiem and Abd El-Maksoud, 2021**, on three geriatric centers in Egypt, including 78 caregivers, aiming to study the effect of a training program for caregivers to

prevent pressure injuries among elderly residents at geriatric homes, they indicated a statistically positive correlation between total knowledge score levels and practice and attitude after delivery of the training program, they ensured that adequate knowledge affects directly the caregivers' attitudes as well as practice.

Conclusions:

The prevention of pressure injuries among the elderly in selected care homes is a constant caregiver challenge, training programs could play a pivotal role in enhancing the practices and knowledge of the caregivers, and from the current study results, it was concluded that:

Applying a pressure injury prevention training program for elderly caregivers significantly improved the knowledge, attitude, and practices of the studied caregivers in the geriatric care homes.

Recommendations:

In light of this study finding, the following recommendations are suggested:

- Continuing implementation of educational training programs for elderly caregivers is necessary to enhance their knowledge, attitude, and practices on pressure injury prevention among home care elderly residents.

- Availability of guidelines in the Arabic language for elderly caregivers about pressure injury prevention.

- The necessity for constant and organized learning plans and training programs for elderly caregivers in elderly home care settings regarding pressure injury prevention knowledge, attitude, and practices to achieve competence in caring for elderly residents.

- Further research should be conducted on larger sample groups of elderly caregivers to assess the care provided to bedridden elderly patients at geriatric care homes.

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