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Educating Staff to Reduce Hospitalization of Individuals Living in a Group Home

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has been found to be complete and satisfactory in all respects,
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Abstract

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MSN, Walden University, 2018

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Project Submitted in Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Nursing Practice

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Abstract

Persons with intellectual and developmental disabilities (IDD) have significant health disparity in terms of high numbers of hospitalizations compared to the general population. The purpose of the project was to improve staff ability to recognize and respond to the changes in the health status of intellectually and developmentally disabled individuals living in a group home. The project utilized Knowles's theory of adult learning to develop a curriculum suitable for adult learners and the Kirkpatrick model to guide the assessment of the training. Pre- and post-perception of learning and satisfaction surveys were provided to the participants online. A paired *t* test was used to analyze the findings of the perception of learning survey to establish whether there were significant differences between the pretest and posttest. The mean knowledge test scores improved from 4.79 (48%) to 9.5 (95%) at the end of the intervention (95% CI: $p < 0.05$). The analysis depicted significant improvements in the perception of knowledge of the participants in the identification and response of changes to the health status of people with IDD. Participants were highly satisfied with the program and stated they would recommend it to others. The project promotes positive social change by empowering the staff to provide person-centered care to people with IDD, thus reducing disparities in quality of care, decreasing cost of care, and reducing hospitalization rates.

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Section 1: Introduction

Intellectual and developmental disability (IDD) is a condition that usually occurs between infancy and the age of 18 years and has a negative influence on the progression of a child's intellectual, physical, and emotional growth (Koriakin et al., 2013). Intellectual growth revolves around disabilities such as learning, reasoning, and problem-solving (Kim & Dymond, 2020). Developmental disabilities, as the name suggests, fall under developmental issues that come in the form of impaired physical development (Centers for Disease Control and Prevention, 2020) often requiring support throughout life.

Statistically, approximately 2%–3% of the overall global populace suffers from IDD (Zablotsky et al., 2019). Zablotsky et al. (2019) noted that between 2014 and 2016, there was a noteworthy increase in the ratio of children between the ages of 3 and 17 years suffering from IDD from 5.76% to 6.99%. Health disparities among persons with IDD have decreased significantly in the United States, following increased attention to the health delivery system as well as customization of the health delivery system to accommodate and respond to their needs (Ervin et al., 2014). However, in comparison to the general population, individuals with IDD have poorer health characterized by high rates of preventable emergency admissions, prolonged hospitalization, and hospital readmissions (Balogh et al., 2018; Hosking et al., 2017; Iacovo et al., 2014).

In several studies, researchers have explored potential causes of increased hospitalization among individuals with IDD compared to the rest of the population (Balogh et al., 2018; Hosking et al., 2017; Iacovo et al., 2014) and two main barriers have

emerged. Identified issues are the inability of IDD individuals to express their healthcare problems and the failure of healthcare providers and caregivers to correctly identify and address health issues (Friedman, 2017; Kim & Dymond, 2020; Qian et al., 2019). Since the inability of IDD individuals to communicate health concerns and needs is inherent to their conditions, it seems necessary to enhance the skill capacity of healthcare providers and caregivers, a point that was the main focus of this project.

The purpose of this staff development project was to improve staff knowledge concerning recognition and response to changes in the health status of IDD people living a group home. According to Embregts et al. (2019) and Zoder-Martell et al. (2014), focused education enhances interaction patterns between the staff and persons with IDD and improves staff skills and competencies. Recognizing changes in health status should prevent unnecessary hospitalization, thus decreasing financial burden to society and enhanced quality of life for the targeted population.

Problem Statement

Despite the improved accessibility of healthcare among people with IDD, there is a significant disparity between this population and their peers in the general population, as evidenced by higher hospitalization compared to healthy individuals (Hosking et al. 2017). According to Hosking et al. (2017), the rate of admission for adults with and without IDD is 182 and 68 per 1000 per year, respectively. The disparity in hospitalization was also noted by Balogh et al. (2018), who found that compared to individuals with mental illness alone, individuals with mental illness and IDD were 1.7 times more likely to be readmitted to hospitals within 30 days. One of the main

contributors to high hospitalization rates among individuals with IDD is inadequate knowledge among healthcare providers and caregivers to identify and address health issues as well as set individual-focused prevention strategies for these individuals (Friedman, 2017; Kim & Dymond, 2020; Qian et al., 2019).

Moore (2013) argued that a lack of training could affect the ability of staff to perform their duty more effectively, which may place the individuals at significant risk. Furthermore, Lewis and Stenfert-Kroese (2010) claimed that the skills of staff caring for individuals with IDD challenges are not often regulated. Thus, they may lack the necessary skills for recognizing and responding to the needs of the IDD population. Since the caregivers lack adequate training, they tend to overlook IDD people with health status deterioration (Lewis et al., 2016).

According to leaders at a local group home, the high hospitalization rate among individuals with IDD coupled with a lack of adequate training for staff caring for these individuals is a significant local nursing practice problem requiring intervention. An education program was designed, implemented, and evaluated to improve staff ability to recognize and respond to the changes in the health status of IDD individuals living in the group home toward the ultimate goal of preventing hospitalizations. The project holds significance to nursing practice by providing a program to educate caregivers which could be used in any healthcare setting. Hospitalization of persons with IDD is known to disrupt the smooth running of group homes (Roll & Bowers, 2017). Therefore, the program should offer benefit by maintaining quality outcomes in group homes where IDD people live.

Purpose

The gap in practice that this project sought to address was the inability of staff to recognize early signs and symptoms of declining health in IDD individuals living in a group home, which would prevent unnecessary hospitalization. The practice-focused question this doctoral project intended to address was: Will an educational program for staff concerning recognition and response to changes in the health status of IDD people living in a group home result in increased knowledge and ultimately reduce the rate of hospitalizations?

In this regard, the Doctor in Nursing Practice (DNP) project was intended to provide an educational program that increases staff's ability to recognize and respond to the changes in the health status of IDD individuals living in a group home in a large metropolitan area in the central United States. As observed by Cox et al. (2015), continued staff performance is essential in such settings, where the skills and knowledge levels necessary for the occupation vary. Educating the staff has the potential to enhance the quality of care delivery for the IDD individuals living in the group home.

Nature of the Doctoral Project

This staff development project relied on evidence from current literature related to employee training and the treatment of IDD individuals to develop and deliver a curriculum and evaluate its effectiveness toward the reduction of unnecessary hospitalization of IDD individuals. In this project, I sought to evaluate and investigate the potential outcomes of staff training in terms of perceived increased knowledge of

participants. The development of a staff training curriculum included formative evaluation by experts in leadership at the chosen facility.

The project followed the *Walden University Manual for Staff Education*, which includes planning, implementation, and evaluation. Foreground discussions with leaders at the project site determined the need for the project and the relevancy of the practice-focused question. After obtaining commitment to the project, I identified a Project Team to assist with formative evaluation in terms of the development and validation of the curriculum and to facilitate staff participation in the educational presentation. Knowles's theory of adult learning was used to design the curriculum and Kirkpatrick's levels of training guided summative evaluation in determining the effectiveness of the program. With Walden Institutional Review Board (IRB) approval and project team participation and oversight, I implemented and evaluated the training. Statistical analysis determined whether significant learning had occurred. Reports will be disseminated organization-wide, and plans for sustainability developed with the Project Team. Hence, the purpose of this DNP project was to improve staff ability to recognize and respond to the changes in the health status of IDD individuals living in a group home.

Significance

As previously noted, leadership at the local group home had identified need for this staff development project. Key stakeholders in the project included the program director, registered nurse supervisor, and the house managers. These stakeholders offered support for the project and, along with the staff training consultant, comprised a project

team that facilitated planning, implementing, and evaluating the proposed staff education program.

This project can contribute to practice in that it is readily transferable to other group home settings. Likewise, the educational program could be used in other settings by caregivers unfamiliar with IDD people. Social change implications of this project include that equipping staff of the group home with the necessary knowledge to recognize early signs and symptoms of declining health in IDD individuals (Hosking et al., 2017) may prevent unnecessary hospitalization and disruption of group home daily flow.

Summary

Leadership in the local group home voiced concerns for staff skills in recognizing changes in the health status of IDD individuals in their care. The DNP project's purpose was to improve staff's ability to recognize and respond to the changes in the health status of IDD individuals living in the group home. The process I employed in this DNP project was an evidence-based staff training project adhering to the *Walden University Manual for Staff Education* that included planning, implementation, and evaluation. Commitment to the project outcomes was obtained. A project team was identified who assisted in formative evaluation in terms of developing and validating the curriculum and facilitated staff participation in the educational presentation. Knowles's theory of adult learning was used to design and deliver the curriculum and Kirkpatrick's levels of training guided summative evaluation in determining the program's effectiveness. The following section will provide further elaboration of the models noted above, which underpinned the

project. Additionally, it will include an enhanced description of the project setting, my role as project leader, and the project team roles.

Section 2: Background and Context

The increased hospitalization rate of IDD individuals has been blamed on the lack of skills and knowledge among staff (Friedman, 2017). This project aimed to identify whether staff training had positive impact, and this section will incorporate frameworks, theories, and concepts used for the project. I used Knowles's adult learning theory to guide the training and Levels 1 and 2 of Kirkpatrick's four-level model to evaluate the training. Additionally, in this section, I describe where the project took place and the roles played by the DNP student and project team.

Concepts, Models, and Theories

People with intellectual disabilities are frequently hospitalized, and this may be attributed to staff not being sufficiently skilled in recognizing and responding to the health needs of IDD individuals (Appelgren et al., 2018). The practice-focused question this doctoral project aimed to address was: Will an educational program concerning recognition and response to changes in the health status of IDD individuals living in a group home result in increased knowledge and ultimately reduce the rate of hospitalizations? The purpose of this DNP project was to improve staff ability to recognize and respond to the changes in the health status of intellectually and developmentally disabled individuals living in a group home.

The field of staff training is quite extensive as it incorporates a myriad of concepts, models, and theories. Staff training can be considered a form of adult learning that primarily takes place at the workplace. It is essential to understand that there is a significant difference between the learning model of children and that of adults. One of

the key differences is that adults have a greater awareness of their environment and learning needs, and, as a result, they tend to have greater control of learning compared to children (Long, 2018). The nature of adult learning can be better understood based on the Knowles's theory of andragogy.

Knowles's Theory of Andragogy

Knowles's theory of andragogy places emphasis on the need for adults to take charge and responsibility for the learning process (Long, 2018). A major premise of this theory is that all adult learning must integrate this crucial aspect for it to be effective (Roll & Bowers, 2017). Knowles's approach to adult learning is characterized by a number of assumptions:

- Self-Concept: Adult learners are at a higher stage of cognitive development compared to children and, therefore, they have an advanced self-concept.
- Previous Learning Experience: Adult learners bring more experience into the learning process compared to children.
- Readiness to Learn: Adult learners understand what they want to learn and why they want to do it, and, thus, they are more willing to engage.
- Orientation to Learning: Adults want to learn from a problem-solving approach as they want to apply the skills and knowledge immediately.
- Intrinsic Motivation: Adult learners are motivated by the willingness to achieve a particular goal, such as better performance at the workplace. (Knowles, 1990)

Application of Knowles's Theory in Staff Training

The assumptions that characterize Knowles's theory were applied in staff training to ensure the achievement of this project's objective. Staff members were consulted when making decisions about the training curriculum. Particularly, there were conversations about the areas of learning they thought they needed improvement on, considering that they already had extensive knowledge and experience in caregiving. Information about the purpose of the training was disseminated beforehand. It is essential that the staff understood their roles in promoting the well-being of the individuals. As recommended by Knowles (1990), the curriculum was developed in a way that allowed the staff to observe and learn in a real-world environment. The learning process was conducted in a way that contributed to the development of mutual respect between the staff and instructor. Transparency through information-sharing is another approach that can boost the relationship between the parties.

The Kirkpatrick model

The Kirkpatrick (2007) model identifies four phases to evaluate training. This model was developed by Kirkpatrick for the evaluation of a broad range of educational programs in both formal and informal contexts. This project focused on the first two levels of Kirkpatrick's model of evaluating training, namely reaction and learning. Reaction evaluation determines the response of the trainees to the learning activities. This is determined based on the responses of individuals after training. In this context, the participants were questioned primarily about their degree of satisfaction with the content of training and engagement with the instructor. At the learning level, the evaluation

determines whether the participants have acquired the knowledge intended. The trainees were assessed for their perception of knowledge acquired after learning, which is an indication of the program's effectiveness in the achievement of the predetermined objectives.

Application of the Kirkpatrick Model

The application of the Kirkpatrick evaluation model can potentially improve the collective benefit of the staff training program (Haidari et al., 2019). This is primarily because the model offers a systematic approach to evaluation, which guides the assessment of the training process. It was imperative to assess the perceptions of the caregivers about the program once it was delivered (i.e., reaction level). The evaluation of perceived learning was conducted both before and after the training program in terms of a simple assessment in accord with content. This assisted in determining the change in the perceived level of knowledge in the identification of threats to the well-being of the IDD individuals.

Relevance to Nursing Practice

The various elements of this project are aligned with the *Walden University Manual for Staff Education*. The project goal was to train staff on recognizing and responding to early signs and symptoms of the declining health of IDD individuals living in a group home to prevent hospitalization. It was expected that the project would have a positive impact on the staff of the group home by equipping them with the necessary skills essential for improved communication, helping them adapt to the various care procedures required of the individuals in the group home, and coordinating the required

care interventions/practices. Credible sources of evidence including Nelson et al. (2014), Meeks et al. (2015), Passalacqua and Harwood (2012), and Creedal et al. (2012) have verified the need for the training described. Also, leadership at the practicum site voiced the need for the project and provided support and commitment to the project plan, implementation, and evaluation.

The high rate of hospitalization among IDD individuals is based in part on knowledge deficit, especially on the part of healthcare staff tasked to monitor and assess the IDD people (Friedman, 2017; Kim & Dymond, 2020; Qian et al., 2019). As a result, facilitating staff training to reduce hospitalization of IDD individuals is a collective responsibility for all healthcare givers (Passalacqua & Harwood, 2012). Creedal et al. (2012) reported that training caregivers and staff on the proper ways of addressing the emotional and physical needs results in positive outcomes, especially in relation to the improved health status of persons with IDD. Hence, this DNP project's focus was to facilitate staff training with the hope of improving their abilities and efficiencies in providing care to IDD individuals.

Local Background and Context

The project took place in a group home in a large metropolitan area in the central United States. The facility operates with 100 employees and serves 37 IDD individuals housed in 12 locations scattered in the region. The Department on Disability Administration (DDA) governs all the group homes in the region. This department coordinates and oversees all the services rendered to IDD individuals within the jurisdiction. IDD individuals with a unique set of disparities and behaviors mean that the

healthcare staff is mandated to engage in a series of educational platforms so that they will learn the most appropriate mechanisms of managing this population. Hence, facilitating education for the staff working with IDD individuals was executed in an environment of acceptance and choice to changes (Lewis et al., 2016). This DNP project focused on the training of healthcare staff that included direct support professionals (DSPs), licensed practical nurses (LPNs), and registered nurses (RNs) to enhance their ability to recognize and report early signs and symptoms of the declining health of IDD individuals in the chosen facility.

Role of the DNP Student

The DNP degree offers an opportunity for students to prepare themselves for the performance of tasks in leadership and administration (Trautmanet.al, 2018). As the project leader, I played a number of roles. I conducted the literature search needed to develop the curriculum. I then developed the educational program and consulted with the project team who provided the formative evaluation needed to make revision as required. I sought necessary approval from IRB to ensure that the project adhered to all required ethical principles and guidelines. I led the training and summative evaluation along with the project team. I conducted statistical evaluation of the de-identified documents and reported findings to the project team.

I was motivated to explore this topic after working with IDD individuals for years and have personally identified knowledge deficits. Some of the staff members were hired without prior experience of working with IDD individuals and were much in need of

education. I anticipated this DNP training would improve staff knowledge and enhance quick identification of IDD individuals' health status.

Role of the Project Team

Practice-based projects must have input and knowledge from different nursing aspects in addition to being time-demanding for stakeholders (Trautman et al., 2018). As a result, the integration of the project team increased the chances of success. That is primarily because these individuals brought unique contributions to the project while supporting the rapid implementation of the plan. This DNP project included the program director, an RN, an LPN, a house manager, and the staff training consultant. These individuals played specific roles, including offering input and evaluation of the project. Each member of the project team offered input into the design of the project and the particular role they played during the implementation process. They reviewed the curriculum and offered formative evaluation thus assisting with the development of an evidence-based curriculum. They also played a critical role in the formative validation of the curriculum before the commencement of the training. The team was involved in the training of staff using the developed curriculum. They also assisted in administering and collecting pre- and post-training questionnaires and participated in the critique of the findings of the project. Finally, the project team participated in the translation of the findings into practice by assisting in the development of standards of practice.

Summary

Based on the research conducted, it is clear that healthcare facilities should focus on training staff to avoid unnecessary risks and dangers that come with hospitalization.

IDD individuals are susceptible to safety issues, which makes quality healthcare for the IDD individuals more critical. According to research, there is severe lack of proper training of healthcare staff, which causes their inability to employ the necessary skills to recognize and respond to IDD individuals' needs (Lewis et al., 2016; Lewis and Stenfert-Kroese, 2010). According to this doctoral project, the goal of which was to develop a practical solution to this clinical challenge, it is crucial to rely on the evidence that indicates the importance of employee training, bettering the treatment of IDD individuals, and evaluating how effective the program is in reducing hospitalization rates.

The next section will focus on elucidating the practice-focused question and the sources of evidence used to answer it. I will also describe the literature review used to develop the curriculum. Finally, a description of the analysis and synthesis of collected data will be addressed.

Section 3: Collection and Analysis of Evidence

People with intellectual disabilities in group homes are frequently hospitalized due in part to staff lacking knowledge in recognizing and responding to changes in health status (O'Neill, 2016). The purpose of this DNP project was to improve staff ability to recognize and respond to the changes in the health status of intellectually and developmentally disabled individuals living in group home. In this section, the evidence collection and analysis procedures are described. The section commences by providing the practice-focused question that forms the baseline of the study and the methodology. The section then highlights the sources of evidence that guided the development of a practical staff training curriculum, including evidence search strategy and evidence generated. I will also provide a description of the participant inclusion criteria and data collection strategy. Thereafter, the data analysis and synthesis strategy will be discussed.

Practice-Focused Question

The high rate of readmissions and hospitalization of people with IDD have been associated with staff lacking skills to recognize and efficiently respond to the IDD individuals' change in health status (Kim &Dymond, 2020; Qian et al., 2019). The gap in practice in this project was the inability of staff to recognize early signs and symptoms of declining health in IDD people to prevent hospitalization. The practice-focused question I aimed to address in this doctoral project was the following: Will an educational program concerning recognition and response to changes in the health status of IDD individuals living in a group home result in increased knowledge and ultimately reduce the rate of hospitalizations? The practice-focused question relates to the identified gap in practice in

that it was essential to address the gap in the knowledge of the group home staff regarding identifying and responding to the health needs of the people under their care so that the IDD individuals would require less hospitalization.

The project setting was a group home facility located in a large metropolitan central U.S. area. Here, 37 IDD individuals located in 12 scattered points in the area are served by approximately 100 employees operating in the chosen facility. The group homes in the area are governed by the Department on Disability Administration, which is tasked to coordinate all the activities and services provided to IDD individuals. The need to provide appropriate IDD care education to this facility's health care staff was not based on any unique skill, but the provision of improved and quality care. This care involved determining the problems encountered by IDD people and the appropriate plans to handle individual patients' specific needs.

The project's participant inclusion criteria included being a member of the group home's staff caring for adults with IDD. These participants voluntarily agreed to participate by filling and signing the participant consent form. In all, 28 adult staff members aged 20–60 participated. Participants with work experience in caring for adult IDD patients for 3 or more years and reading and writing effectively were considered to take part in the project. Excluded from participation were non-staff members and staff members working in departments other than the IDD sector. The project focused on the training of healthcare staff who included DSPs, LPNs, and RNs to enhance their ability to recognize and report early signs and symptoms of the IDD individuals declining health in

the chosen facility. Training sessions were conducted virtually and was done 4 hours a week for 2 weeks.

Sources of Evidence

To collect evidence relating to the effectiveness of staff training in changing the quality of care by early identification of health status changes, I searched for articles from current, peer-reviewed professional journals. The evidence was then used to create curriculum as well as devise the best training strategies to impact behavioral changes among the staff working in the group home for individuals with IDD. The evidence was derived from databases including PubMed, Medscape, MEDLINE, Cochrane and PsycINFO.

The search terms for evidence search included the following: *effectiveness of staff training*, *IDD*, *group home residents*, *health conditions in group homes*, *health status*, *barriers*, *hospitalization*, and *group homes*. The search terms were combined with various Boolean words such as *among*, *of*, *and*, *in*, and *for* depending on the evidence domain sought. The results generated by the search engines of the respective databases were filtered by limiting the articles to 5 years, and existence of abstract and full-text formats, as well as relevance to specific evidence domains.

I shared articles and appropriate documents in project team meetings led by me, and these sources formed the basis for curriculum development. There were ongoing formative evaluation by the team and summative evaluation included data from pre- and post-program knowledge assessment, as well as participant evaluation of the presentation.

These data guided necessary revisions which will be used for ongoing training with new hires.

Effectiveness of Staff Training

Several studies have demonstrated that staff training is an effective method of improving knowledge and change staff behaviors, thus enhancing their capacity in recognizing and responding to needs of their clients. According to Sandjojo et al. (2018), training can change the staff attitude towards persons with IDD and methods of offering care to this cohort. Using a mixed quantitative and qualitative methodology, Sandjojo et al. sought to determine the effectiveness of staff training on promotion of self-management in people with IDD. The researchers administered questionnaires to the staff to determine the changes in independence and self-reliance, support needs, and behavioral problems among individuals with IDD. This was done prior to the commencement of the training, 3 months after training, and 6 months after training. Regarding the qualitative method, Sandjojo et al. held a focus group discussion 6 months after the training to determine the benefits and effectiveness of the program to the staff. Twenty-eight staff members participated in the staff training program in group homes. The training, which was dubbed, “On Your Own Two Feet,” was conducted for two consecutive days for a total of 12 hours. It included theory as well as practical sessions through role play. The study identified a progressive improvement on independence and self-reliance, but no significant changes in support needs and challenging behaviors. The staff reported a change in attitude toward their working approaches but perceived limited benefits of the training.

The findings by Sandjojo, et al. (2018) also concur with the findings of an observational study by Embregrets et al. (2019). Embregets et al. sought to evaluate a staff training intervention on the interaction between the staff and people with IDD. The study utilized the pretest–posttest control group design. The behaviors of 29 staff (17 in the experiment group and 12 on the control group) when interacting with individuals with IDD were video recorded during the study period. Fragments of the video clips captured were analyzed for autonomy, relatedness, and competence. The study determined that the staff who underwent training (experiment group) had enhanced the interaction between the staff and persons with IDD compared to those who did not undergo the training.

Training Methods

Several methods have been used to train staff caring for individuals with IDD. A DNP project by O'Neill (2016) seeking to educate staff caring for adults with IDD developed a toolkit describing syndromes manifesting as IDD including down syndrome, fetal spectrum disorders, Klinefelter syndrome, and autism, among others. Following the training program, O'Neill determined that the toolkit was an effective method in equipping staff with necessary competencies to care for persons with IDD.

In another DNP project, Harmon (2017) sought to improve knowledge and foster best practices of acute care staff caring for persons with IDD through a two-hour seminar presentation, which was recorded and shared by intranet. The researcher determined that 94% of the participants were prompted to learn more, while 88% implied they would use what they learned in practice. The evidence gathered from this quality improvement

project supports the use of classroom presentations as a desirable method of sharing knowledge with staff caring for persons with IDD.

Evidence Generated for the Doctoral Project

The project was conducted in a group home whereby three major steps, namely, pre- and post-perception of knowledge test, staff training, and satisfaction questionnaires were used. The project team was solely responsible for identifying the participants who would benefit from the educational offering while maintaining anonymity throughout the project. Thus, all data collection and analysis tools as well as the final document did not have personal or institutional identifiers. The data were stored in a password-protected computer and only I knew the password. All hard copy materials were stored in a locked file cabinet stored in a private room. The permission to conduct the project was sought from the group home management since the group home does not have an ethics board. Similarly, approval to conduct the study was sought from Walden University IRB. The IRB approval number for this project is 03-16-21-0667609.

Analysis and Synthesis

Pre- and post-perception of knowledge questionnaires and satisfaction surveys (de-identified) were provided to me for analysis. The data were entered into a Microsoft Excel spreadsheet and later imported into SPSS (Version 26) for analysis. Scores were evaluated for improvement following delivery of the curriculum and significance determined through the use of paired sample *t* test. Satisfaction survey was detailed descriptively. Means, frequencies, and percentages were calculated and presented using tables and figure.

Summary

In this section, I described staff training as an effective method of enhancing staff caring for persons with IDD and identifying and acting on changes in their health status (Embregets et al., 2019; Sandjojo et al., 2018). I also described the development of a training tool kit followed by an educational presentation as an efficient method that can be applied in this quality improvement project (Harmon, 2017; O'Neill, 2016). Similarly, this section identified crucial information that should be included in the training material, including routine annual comprehensive assessment, person-centered care planning, and routine use of the nursing process to assess, plan, intervene, and evaluate the health status of individuals with IDD. Section 4 provides a discussion of the findings and their implications for practice and future projects. In addition, the contribution of the doctoral project team and the strengths and limitations of this project will be reviewed in this section.

Section 4: Findings and Recommendations

Introduction

The local problem at the practicum site was the lack of adequate training for nurses caring for individuals with IDD leading to high rates of hospitalization rates. The gap in practice that this project sought to address was the inability of staff to recognize early signs and symptoms of declining health in IDD individuals living in a group home, which would prevent unnecessary hospitalization. The purpose of this DNP project was to improve staff ability to recognize and respond to the changes in the health status of IDD individuals living in a group home. The practice-focused question in this doctoral project was: Will an educational program for staff concerning recognition and response to changes in the health status of IDD people living in a group home result in increased knowledge and ultimately reduce the rate of hospitalizations?

Sources of evidence included a literature search across selected databases and a review of the project by the project team with each member offering input into the design of the project. A review of empirical evidence obtained from the searched electronic databases indicated that staff training is an effective approach to improving staff knowledge and attitudes, and promoting the adoption of best practices in the provision of care to individuals with IDD.

Findings and Implications

In total, 28 out of the 29 formerly projected staff members registered and attended the training. The project was carried out in a group home setting whereby three significant steps were followed, including the completion of pre-and post-perception of

knowledge-based questionnaires, staff training, and satisfaction surveys (de-identified). I placed recruitment posters and flyers in the training room, staff lunchroom of all the 12 locations of the chosen facility, and the facility head office lobby. The staff interested in the educational training registered with the program director, and the registration forms were sent to me via email. Consent for the training was sent via email to staff who registered for the training. I uploaded the demographic and pre-test questionnaire on the Survey Monkey online survey platform; links were then generated and sent out to the registered trainees' email addresses. With the help of the project team, staff completed the questionnaire before the first day of the training to evaluate the participants' perceived knowledge. The link generated for the pre-test questionnaire was locked on the Survey Monkey platform before the commencement of the training to ensure accurate data collection. Demographic characteristics of all the participating staff were collected. I then conducted the training virtually via the Zoom videoconferencing platform. The training was divided into four sessions, 2 hours per session, and twice a week for 2 weeks to accommodate the facility's staffing needs. The trainer uploaded a post-test questionnaire and satisfaction survey on the survey monkey upon completing the training to assess the participants' knowledge and satisfaction post-training. After the participants completed the post-test questionnaire and satisfaction survey, I collected and analyzed the data. The initial plan had been to conduct face-to-face training with 29 staff, but this was not the case because of measures to prevent the rise of COVID-19 infections at the facility after five staff members died of COVID-19 complications. One of the staff did not register for the training. Hence, 28 staff members registered and attended the training.

The intention of the training program was to provide an educational program that increases staff's ability to recognize and respond to the changes in the health status of IDD individuals living in a group home. It emphasized the unique signs and symptoms of illness, physical changes, behavioral changes, and other aspects of the nursing process for individuals with IDD. No personal or institutional identifiers were collected, and permission for project implementation was obtained from the management of the group home and IRB of Walden University.

Of the 28 staff who took part in this project, four were RNs, four were LPNs, and 20 were DSPs. The majority of the participants were female (n = 24, 85.7%). Most of the participants had graduate degrees followed by associate degrees and high school diplomas (see Table 1). Participants had varying years of work experience ranging from 1 to 25 years, with the majority (n = 21, 75%) having worked for at least 6 years. Work experience was a critical demographic measure, considering that those with long years of service are likely to have brought their experience, attitudes, and biases to the training programs. The majority of the participants (57.1%) were 31–40 years old, followed by the 41–50 age group (17.9%), and with the smallest age group constituting those aged 51+ (10.7%).

Table 1

Demographic Details of Participants

Variables	Level	*n* (%)
Gender	Female	24 (85.7)
	Male	4 (14.3)
Highest level of education	Diploma	15 (53.6)
	Associate degree	5 (17.24)
	Bachelor degree	3 (10.7)
	Masters	5 (17.9)
Years of experience	1-5 years	7 (25)
	6-10 years	9 (32.1)
	11-14 years	5 (17.9)
	15- 20 years	4 (14.2)
	21- 25 years	2 (7)
	25 years and over	1 (3)
Age	20-30	4 (14.2)
	31-40	16 (57.1)
	41-50	5(17.9)
	51+	3 (10.7)
Licensure	Registered nurses	4 (14.2)
	Licensed practical nurses	4 (14.2)
	Direct support staff	20 (71.4)

Note. $N = 28$.

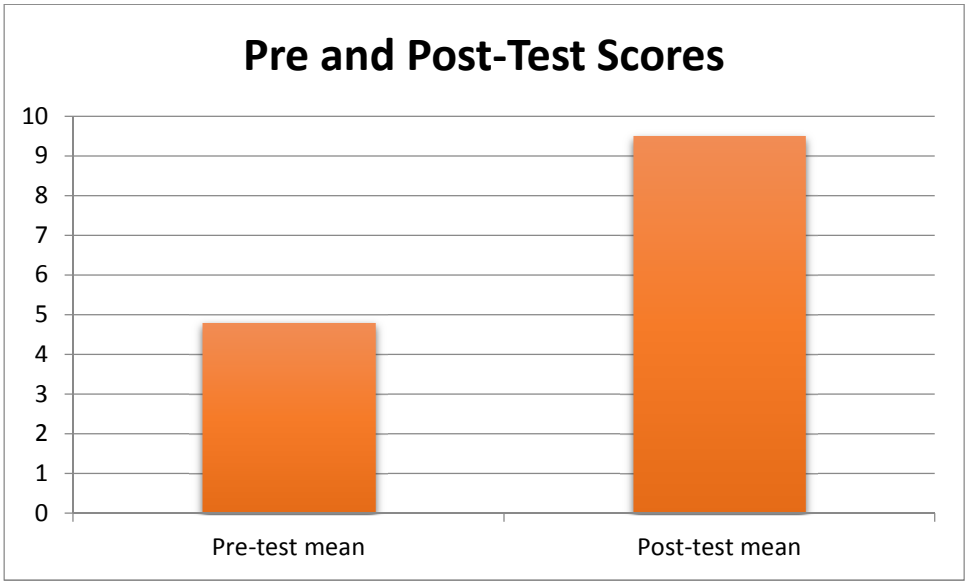
All the data collected for this project were entered into Microsoft Excel and later imported into SPSS (Version 26) for analysis. Demographic data, including educational level, licensure, and work experiences, were analyzed to determine the frequencies, percentages, means, and standard deviations. The demographic data have been summarized in a tabular layout. Data regarding the perceived knowledge score of the participating staff were analyzed to determine the mean and percentage changes between the pretest and posttest scores. Paired *t* tests statistical analyses were conducted afterward

to establish if the differences between the pretest and posttest scores were statistically significant. Data were explored for normality and homogeneity of variance.

A major goal of the training program was to increase staff's ability to recognize and respond to the changes in the health status of IDD individuals living in a group home. This was accomplished by equipping the participating staff with the knowledge required to deliver quality care to people with IDD living in the group home. In total, 28 staff members completed the perceived knowledge assessment questionnaire with data analysis depicting substantial improvement in the perceived knowledge scores of the participants at the end of the intervention. The questionnaire had 10 questions about the perceived knowledge of the staff regarding the assessment and management of individuals with IDD (see Appendix A). The pretest mean score was 4.79 (48%), with the score increasing up to 9.5 (95%) following the provision of posttest at the end of the intervention (see Figure 1). This means the percentage mean score of the participants increased by 47%, and the increase can be attributed to the provision of the educational sessions.

Figure 1

Pre- and Post-Test Scores



Further analysis of the perceived knowledge survey was carried out using paired *t* tests, with the analysis indicating that the differences between the means were statistically significant, $t(2.01) = 1.7$, $p < 0.05$, 95% CI [.03, 1.02]. The improvements in the perceived knowledge scores of the participating staff mean that the training program was effective in accomplishing its initial goal. The analysis of the satisfaction survey highlighted that participants were mostly satisfied with the delivery and content of the program. It was noted that 84% of the participants strongly agreed that the instructor was well prepared and 90% strongly agreed the project leader communicated effectively. A similar number of participants strongly agreed with other statements such as project was relevant to their jobs, had enough time to practice skills, felt satisfied with the course, and would recommend the course to other staff (see Table 2).

Table 2

Descriptive Statistics of Satisfaction Survey

Satisfaction Survey	*n*	%
The instructor was well prepared		
Agree	26	93
Disagree	2	7
The instructor communicated the information clearly		
Agree	27	96
Disagree	1	4
The topics covered were relevant to my job		
Agree	26	93
Disagree	2	7
I had enough time to practice skills		
Agree	25	89
Disagree	3	11
I received enough training from the instructor during the skill practice session.		
Agree	19	68
Disagree	9	32
I learnt the skills that will help me perform my job		
Agree	21	75
Disagree	7	25
I was satisfied with the course		
Agree	27	96
Disagree	1	4
I would recommend this course to others		
Agree	20	71
Disagree	8	29

Implications

The findings of this project have implications for practice, policy, and future projects. The findings demonstrated that an evidence-based educational program was effective in enhancing the perceived knowledge of nurses and allied healthcare professionals in the provision of person-centered care to individuals with IDD. They learned about identifying, evaluating, and managing disease symptoms in individuals with IDD. They also learned about taking into the unique needs of individuals with IDD in care provision. The nurses and direct staff who took part in this project are at the forefront in the provision of care to people with IDD at the group home. The provision of the educational intervention made the staff aware of the recommended practices in assessing and managing health conditions among people with IDD. They are more prepared to assess and understand the needs of individuals and develop care plans addressing issues that really matter to people with IDD. The training program also promoted collaboration among the staff by involving different professionals working together as a team which is essential for delivery a quality care for the IDD individuals. Being judgmental about the early signs and symptoms of disease was addressed and discouraged. People with IDD are now viewed holistically as who they are and not their disability and this is imperative not only for their health but also for accomplishments of their life potentials (Appelgren, 2018).

The project facilitated the translation of research evidence into practice by providing the staff with the required knowledge for the provision of care to people with IDD. Practice change is not easy and does not happen at once. Changing the way

healthcare is delivered to people with special needs, such as those with IDD, requires a strong commitment to quality and positive outcomes (Ervin et al., 2014). The positive outcomes of this project, including the improved staff knowledge and satisfaction with the training provided, provide the basis for implementing similar projects to promote practice change and outcomes among individuals with IDD. The training program assured all healthcare providers are adequately trained to deliver person-centered care to people with IDD. Consequently, the job of nurses and other direct support staff became easier because they have the techniques for identifying and understanding the unique needs of the people they serve.

It is critical for all nurses and allied healthcare staff to learn about the policy development process and actively take part in shaping policy reforms at the local, state, or federal level (Turale & Kunaviktikul, 2019). The implementation of the project facilitated a review of the research gap and practices at the group home. There was a change in practice policy to facilitate the provision of holistic care to individuals with IDD. Staff are required to view individuals more than their diagnosis or disabilities and learn to identify and address their unique needs to decrease morbidity and hospitalization rates.

Social Change

The findings support the concept that evidence-based research in practice is critical in translating new knowledge into practice. Doctorate prepared nurses have the required skills to facilitate decision-making processes across healthcare agencies based on the best available research evidence (Chism, 2016). The implementation of this

evidence-based project improves the staff's knowledge in providing care to IDD individual thus facilitated practice change. The healthcare staff members at the chosen group home have a better understanding of individuals' unique needs with IDD and their assessment and management. The improved knowledge and comprehension of the necessities of people with IDD could lead to a cultural change in practice at the project site. The practice change should be embraced all over the country to promote the provision of holistic care to people with IDD. This will lead to decreased hospitalization rates and cost of care (Hosking et al., 2017). The DNP project also contributes to positive social change by reducing health disparities facing people with IDD seeking care at the group home. The project is of benefit to the people with IDD, their families, and society at large by facilitating the elimination of stigma to people with disabilities. It is in the direction of promoting a fully integrated community where people with IDD feel supported and understood.

Recommendations

The gap in practice that I sought to address in this project was the inability of staff to recognize early signs and symptoms of declining health in IDD individuals living in a group home, which would prevent unnecessary hospitalization. There was a demonstration of improvement in the perceived knowledge of the group home staff in the assessment and management of the unique needs of individuals with IDD, thus promoting the provision of person-centered care. This is consistent with the Department on Disability Services Disability Administration (2015) recommendation for the provision of person-centered care to people living with IDD. To address such gaps in the future,

regular training programs should be provided to empower the staff to always provide evidence-based care to people with IDD. The training program can become part of the orientation programs to the newly hired staff at the group home. Other measures to ensure sustainability will be introduced. An example of such a measure is encouraging the project champions to continue championing the provision of person-centered care by encouraging other staff to always assess the unique needs of people with IDD and offer appropriate treatment. I will disseminate the findings of this project to all the staff and key stakeholders and initiate a discussion of how the current practice policies can be amended to improve the staff's knowledge. Facility management adherent to the recommended solutions is expected to reduce hospital admission rates, improved patient outcomes, and decreased the cost of care for people with IDD at the facility are expected.

Contribution of the Doctoral Project Team

A project team was constituted to include the program director, an RN, an LPN, a house manager, and the staff training consultant. The team members played various roles, including reviewing the curriculum for the educational program and giving input on how it could be improved to meet learning needs. They provided formative evaluation prior to the commencement of the training program. As the project leader, I coordinated the activities of the team members and developed the training program for review by the members of the project team. The project team also recruited and provided participants for the training. Involvement of the team members allowed different perspectives to be taken into account and ensured the project was effective in meeting its purpose. Key lessons learned in this project are imperative in guiding future implementation efforts at

the group home and other similar settings to facilitate the staff's ability to identify early health status change in IDD individuals.

Strength and Limitations of the Project

The staff education project was based on current empirical evidence on the provision of care to people with IDD. This means that the project was evidence-based and this was imperative in ensuring that the nursing and other direct support staff had up to date knowledge to deliver high quality care to IDD people. In addition, the project was conceptualized on an appropriate theory of learning, facilitating the acquisition of knowledge by the healthcare staff. Knowles's theory of andragogy places emphasis on the need for adults to take charge and responsibility for the learning process (Long, 2018). This project assisted nurses and direct support staff in acquiring knowledge needed for recognition and response to changes in the health status of IDD people living a group home. The Kirkpatrick model provided a systematic approach that guided evaluation of this evidence-based project improving the likelihood of success in future endeavors (Haidari et al., 2019).

A great strength of the project was strong institutional support. Key stakeholders at the group home embraced the project as a change initiative. The stakeholders were essential in identifying and assisting the project leader in handling restraining forces that could have jeopardized project implementation.

In terms of limitations, the educational sessions were held online although the initial plan was to hold face-to-face sessions. The project took place when the country and the world had been impacted by the COVID-19 pandemic thus measures to ensure

social distancing among others had to be taken to decrease the risk of spreading the virus. As a result, all of the sessions took place in online platform. The online educational sessions were not as interactive as they might have been. Another limitation is that some participants were reluctant to take part in this project due to lack of time and other commitments. As a result, the project did not attain 100% enrollment of the healthcare staff at the facility. Another limitation relates to the fact that the project was implemented within a short duration (two weeks). This did not give time to evaluate the impact of the project on outcomes such as hospital readmission rates and individuals' quality of life because this would require more time to detect meaningful changes as a result of an intervention. Consequently, future projects should consider having a longer follow-up period and have the clinical outcome measures tracked and analyzed.

Summary

People with IDD generally have poorer health outcomes marked by high rates of preventable admissions, prolonged hospitalization, and high rates of avoidable emergency hospital admissions. The poor outcomes have been partially attributed to the healthcare staff lacking adequate knowledge and skills to identify and respond to the early change in the health status of people with IDD to prevent hospitalization. The gap in practice that this project sought to address was the inability of staff to recognize early signs and symptoms of declining health in IDD individuals living in a group home, which would prevent unnecessary hospitalization. The project employed a pretest posttest design and has been associated with improved perceived staff knowledge regarding the provision of care to people with IDD. The project was also marked by high rates of staff

satisfaction with the project in meeting their training needs. The improvements are expected to contribute in the increased in knowledge and skills of the staff and invariably reduction of the hospitalization rates by enhancing the quality of care provided to the IDD people in the group home. Sustainability measures should be put in place to ensure the acquired knowledge and skills are retained and applied in practice in the coming years. Future projects should seek to evaluate the effectiveness of educational training programs on providing care to people with IDD in the group home. Section 5 will outline the project dissemination plan and an analysis of self as a practitioner, scholar, and project manager.

Section 5: Dissemination Plan

The significance of robust scholarly findings for the provision of safe, efficient, and effective patient care has been well-established. Although research evidence is being generated at a high rate, its application to clinical practice is lagging (Curtis et al., 2017). According to Williams and Cullen (2016), a study is not complete until the findings have been disseminated via various platforms. The primary goal of dissemination is promoting the spread of knowledge regarding evidence-based interventions to stakeholders working in similar settings to improve patient outcomes (Curtis et al., 2017). I led the inter-professional team at the project site to develop and implement the training program to address the identified practice gap. The healthcare leadership in the group home had voiced concerns for staff skills regarding recognition of changes in the health status of the individuals with IDD. The project team reviewed the evidence supporting the proposed program and supported the development of a training program to provide the staff with knowledge and skills needed in the identification of the early signs and symptoms of illness of IDD individuals and provision of patient-centered care.

There are a wide range of internal and external methods that can be employed to facilitate the dissemination of scholarly findings. The decision to use a certain method over another should take specific context into account such as the target audience. Healthcare providers mostly want to know the findings fit into their context and the implications of embracing the recommendations for practice (Curtis et al., 2017). One of the internal approaches I will use is disseminating the findings during quarterly meetings. Most of the staff quarterly meetings at the group home are taking place online, and I will

prepare a brief poster to share the findings during one of the meetings. I will share the journey of project implementation with them, thank them for participation, share the results, and initiate discussions regarding what should be done to sustain the new knowledge and change in practice. Another approach is hanging the posters on the group home boards for all staff to see. This will make all staff aware of the change in practice, including those who did not take part in the project, thus facilitating improved practice.

DNP projects are valuable sources of evidence-based information and have the potential to enhance nurse knowledge and practice if applied in similar settings (Zaccagnini & Pechacek, 2021). One of the external methods that I will employ is presenting a poster at a local, state, or national nursing conference, particularly those organized by the American Association on Intellectual and Developmental Disabilities. The professional platform provides an ideal platform for reaching to thousands of nurse practitioners working in similar settings. This is likely to have a positive impact on practice because practitioners in similar settings are likely to embrace the recommendations provided during the presentation. I am also considering submitting a manuscript for publication in a peer-reviewed journal, the *Journal of Applied Research in Intellectual Disabilities*, due to its relevance to projects seeking to improve the provision of care to people with IDD. The journal has a free access policy, which will facilitate access to all healthcare staff in similar settings free of charge. The third technique is sharing the project manuscript on ProQuest to allow access to other scholars and practitioners in similar settings.

Analysis of Self

As a Scholar

According to the American Association of Colleges of Nursing (AACN, 2006), the DNP program seeks to prepare nurses with a wide range of skills and the capacity to translate research evidence into practice to enhance quality of care and patient outcomes. The AACN has outlined eight competencies that should be met in a DNP program. As a scholar, I was able to meet all the requirements through the development and implementation of this training program seeking to address the local gap in practice based on the best research evidence. I undertook a literature search on the various electronic databases and identified peer-reviewed articles to support the intervention to improve the knowledge of the staff in the provision of care to individuals with IDD at the facility.

I learned about literature search strategies and developed critical analysis skills during the process. I had to be selective on the kind of materials to include because I realized not all published research is of high quality or applicable to one's practice. The exercise in turn enhanced my skills as a nurse scholar, and I intend to assist other staff at my workplace in identifying best research evidence and practice evidence guidelines to keep them abreast of the changes taking place in the field. I would also like to appreciate that my writing skills improved and I gained confidence in my ability to express myself in a scholarly manner. I had to discuss the results of my projects and what the analysis meant, and this went a long way in improving my scholarly skills.

As a Practitioner

The Institute of Medicine (2010) report issued the recommendation that advanced practice registered nurses (APRNs) should be allowed to practice to the full scope of their education and training. Indeed, the recommendation is becoming true as an increasing number of states grant APRNs full practice scope. To take the new responsibilities, RNs should seek higher education. I became an RN in 2003 and have since maintained the desire for higher education. I have developed a passion for working with people with intellectual disabilities because of the unique challenges they experience compared to the general population. As a nurse practitioner, the current project empowered me to gather the best current research evidence and apply it into practice. It honed my capacity to initiate, develop, and assess programs seeking to improve patient care.

The development of critical thinking and analysis skills is crucial because it has improved my ability to analyze and solve problems at the workplace based on the best evidence. I will motivate other staff to consider basing patient care on the best available evidence and clinical guidelines while taking into account the needs of individuals with IDD. I emphasized a lot the need for tailoring care provision to the needs of the patient. I believe each person is unique and should be viewed holistically and have their needs addressed adequately while maintaining their dignity. The project also gave me a platform for exercising my leadership skills in policy development as a nurse practitioner. There was a great deal of emphasis on patient assessment and provision of care based on their needs.

Currently, I am working on improving practice policies at the facility to promote the provision of person-centered care. I am also going to propose policies requiring the staff to take part in regular training programs with the intention to maintain the new practice. Most importantly, I realized there is a bigger role I can play as a practitioner in providing care to people with IDD and facilitating achievements of Healthy People 2020 goals to this population. I intend to become an advocate for the provision of quality care to IDD individuals at the local, state, and federal level. As a practitioner, I am committed to ascertaining that appropriate language is used when taking care of individuals with IDD and that no negative attitudes or biases decrease the quality of care. I know this is likely to take time, but I am determined to become an advocate for evidence-based care for this patient population to eliminate disparities in health outcomes.

As a Project Developer

DNP-prepared nurses are expected to have the competencies to empower them to lead quality improvement initiatives to enhance clinical outcomes and improve population health (Zaccagnini & Pechacek, 2021). One of my main accomplishments in undertaking the project and completing the DNP course is the development of skills as a project leader. I was able to experience firsthand the challenges as well as rewards of leading quality improvement initiatives. While it was successful, the journey was not as easy as I thought at the beginning. I had to navigate and overcome several impediments. There were some forms of resistance with some staff arguing that they have been effectively providing care based on their knowledge and training provided during orientation. I had to apply skills such as effective communication, persuasion, and

motivation to convince all the stakeholders of the need and the potential of the project. This gave me the opportunity to hone my leadership skills, and I feel prepared to lead other quality improvement initiatives.

The DNP project granted me the opportunity to identify a practice gap, conduct research, synthesize evidence, and apply it into practice to address the local practice gap. I would say it took me out of my comfort zone by challenging me to take the project leadership role, something I would not have readily done prior to taking the DNP course at Walden University. I had to establish a project team and hold formal meetings with them to discuss the content of the program and its intended objectives. This allowed me to improve project leadership skills including teamwork, coaching, supporting, and project evaluation processes (Kelly, 2013). I also had to learn how to appreciate the project champions to keep the momentum in the attendance of the educational sessions and have a real impact on practice. I learned about the importance of having open lines of communication and encouraging feedback to gain buy-in and improve the quality of the project. Time management was also critical as I had to complete the project within 2 weeks. I came to know that I was not as good in time management as I initially thought. I had to learn the act of prioritizing tasks based on their importance and urgency. I intend to take part in similar projects in the future to apply the skills developed in the exercise.

Summary

The gap in practice that I sought to address through this project was the inability of staff to recognize early signs and symptoms of declining health in IDD individuals living in a group home, which would prevent unnecessary hospitalization. The problem

was attributed to the lack of evidence-based educational programs to impact the staff with the required knowledge and skills for recognizing and responding to early health status change of the IDD individuals. A literature search was conducted to identify current studies presenting evidence on the most appropriate interventions. The search led to the identification of studies reviewing the effectiveness of the training programs. The review of the evidence depicted that training programs are efficient approaches to promote the comprehensive assessment of individuals with IDD and provision of person-centered care.

A pretest and posttest design was employed in the implementation of the intervention. The project was effective in improving the knowledge and skills of the participants in the recognizing and responding to a change in IDD individuals' health. This is expected to improve the quality of care provided at the facility leading to decreased hospitalization rates, cost of care, and improvements in quality of life for individuals with IDD at the facility. Insights gained from the development and implementation of this project can form the basis for developing future programs seeking to address disparities in healthcare outcomes among people with IDD.

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Appendix A: Pre- and Post-Staff Training Questionnaire

This survey aims to have an insight into the staff knowledge and skills of caring for people with intellectual and developmental disabled individuals living in the group home. The survey should take 1 to 2 minutes and your responses are anonymous.

1. I have an understanding of the needs of individuals with intellectual and developmental disability

   Yes No

2. I am comfortable providing care for the people with intellectual and developmental disability

   Yes No

3. I can identify at least two symptoms of the most common medical complications that are associated with intellectual and developmental disabled people

   Yes No

4. I am confident in my ability to communicate effectively with the rest of the team caring for adult with intellectual and developmental disability

   Yes No

5. I am confident in my ability to co-ordinate care with the rest of the team caring for intellectual and developmental disabled individuals

   Yes No

6. I can list three nursing strategies for caring for an individual with intellectual and developmental disability

   Yes No

7. Knowing the individual's normal pattern of behavior and health is crucial to identifying the signs and symptoms of illness

   Yes No

8. What the individual did or said that may be signs and symptoms of illness or injury must be reported and documented

   Yes No

9. Signs and symptoms of illness is the changes observed by the staff or reported by the individual

   Yes No

10. Changes in an individual's daily routine, behavior, way of communicating, appearance, usual mood, and physical health must be reported and document

    Yes No

Appendix B: Staff Educational Program Curriculum

Title**:** Educating Staff to Reduce Hospitalization of Individuals Living in a Group Home

Type of project**:** Staff development project

The gap in practice**:** The gap in practice in this project is the inability of staff to recognize early signs and symptoms of declining health in IDD individuals to prevent hospitalization.

Problem**:** People with intellectual disabilities are frequently hospitalized, and this is attributed to staff not sufficiently skilled in recognizing and responding to the health needs of intellectually and developmentally disabled individuals.

Purpose**:** To improve staff ability to recognize and respond to the changes in the health status of intellectually and developmentally disabled individuals living in a group home.

Practice-focused question: Will an educational program concerning recognition and response to changes in the health status of IDD people living in a group home result in increased knowledge and ultimately fewer hospitalizations?

Theoretical model**:** Knowles adult learning theory to plan the training, Kirkpatrick levels of training for evaluation.

Mode of training: Oral presentation via zoom platform

Data used to answer the question: Pre and post-knowledge assessment

Analysis/synthesis needed to answer the question: Summative evaluation of the quality of training, t-test to compare pre and post-learning

Staff Educational Program Curriculum

Module 1: Introduction to the Training Curriculum

The purpose of the training program is to educate direct support professionals (DSPs), licensed practice nurses (LPNs), and registered nurses (RNs) to recognize and respond to a change in the health status of intellectually and developmentally disabled (IDD) individuals living in the group home. As the first step in the training process, the trainer (DNP student) will inform the staff of the significance of acquiring skills and knowledge to provide quality care for IDD patients living in-group homes. The responsibilities of the nursing staff will be outlined in the module.

- DSPs are directly involved in helping IDD patients with activities of daily living.
- LPNs engage in making medical appointments and coordinate IDD patients' care with pharmacists, primary care providers, laboratory procedures, and report the care outcomes to the RNs.
- RNs are responsible for staff training and submit written quarterly and annual reports of each individual.

In module 1, the trainer will teach the staff (DSPs, LPNs, RNs) the value of teamwork to evaluate IDD health status. A PowerPoint presentation will be used to discuss the significance of medical teams working together to reduce hospitalization rates among individuals living in a group home.

Module 2: Identifying Signs and Symptoms

Module 2 offers a detailed explanation of the significance of identifying signs and symptoms in IDD individuals. These are changes seen in IDD individuals' appearances,

behavior, and bodily functions. The signs and symptoms can be seen, heard, felt, or smelled. The trainer will explain that signs and symptoms can be detected by taking a temperature, pulse and conducting laboratory tests. The module will explain the significance of observing IDD individuals for changes in physical condition and behavior. The module will outline the critical signs and symptoms to consider in identifying IDD individuals.

- Feeling upset
- Hearing voices
- Seeing stars
- Nausea
- Dizziness
- Loss of appetite

For individuals who may not verbally express how they feel, DSP staff will be required to observe their temperature, diarrhea, vomiting, and slurring speech. On some occasions, the staff will need to observe IDD individuals' nonverbal behavior and report them to their supervisor (RN or LPN) to detect symptoms. The module outlines some of the critical undesired behaviors.

- Restlessness
- Pacing
- Pointing towards parts of the body
- Holding one's head
- Limping

Module 3: Changes in Physical Condition

Module 3 describes the significance of teamwork in identifying changes in the physical condition of IDD individuals. Across healthcare settings, teamwork is crucial in ensuring the quality and safety of patient care (Rosen et al., 2018; Mayo, 2020). The first part of this module explains why medical teams must function as a unit, taking advantage of the diverse individual skills and knowledge. When dealing with IDD individuals, it is paramount to take dynamic and holistic approaches. For example, the PCPs are tasked with prescribing medications and treating IDD individuals. DSPs are the closest to the IDD individuals and must possess good observational skills to identify change. Based on the identified physical and behavioral condition, DSPs are expected to report the findings to the LPNs or RNs. The module denotes the significance of noting daily IDD individuals' changes – health status and behavioral condition that can discern any changes.

The second part of the module outlines the physical health status that staff members are expected to observe. These changes mark the condition of IDD individuals, and some of the most important ones include:

- Incontinent of bladder
- Loss of appetite
- Change in ability to perform personal hygiene
- Change in body weight
- Occurrence of diarrhea or constipation

The module emphasizes that staff must read each IDD individual's medical records, pay attention to recommendations from PCPs and specialists, and ask critical questions. Taking a collaborative approach will guarantee improved quality and patient safety throughout the treatment process.

Module 4: Identifying Changes in Behavior

The module illustrates the significance of understanding IDD individuals' behavioral routines. It also clarifies the essence of communication among medical teams in a workplace setting to improve the quality and safety of care. The first section of the module explains the significance of behavioral analysis. Treatment plans and projected outcomes are dependent on patients' behaviors and reaction to treatment (Rentas et al., 2019). An observed patient acquires a passive role and a nurse an expert role. Hence, behavioral analysis plays a critical role in understanding medication adherence, psychological interventions, and self-care strategies (Molina-Mula & Gallo-Estrada, 2020). The second section of this module explains how staff can identify any change in behavior among IDD individuals. Identifying any behavior change requires the staff to know the routine and behavioral patterns of IDD individuals. The staff must be familiar with the regular behavior pattern of each IDD individual under their care. If there is any identified deviation from the regular pattern, the DSPs will be required to report the changes to the assigned supervisors and document the findings. The module outlines crucial behavioral change indicators, and they may be in the form of:

- Mental or emotional changes
- Change in sleep patterns

- Change in level of activity
- Decrease in communication
- Drowsiness
- Increased irritability
- Increased pacing
- Increased or decreased resistance to care

The third section of this module explains the role of the medical teams in identifying behavioral changes and taking action to protect IDD individuals. The primary care providers (PCPs) can diagnose, prescribe medication and offer treatment. However, they will not do their job without IDD individuals, staff observations, and descriptions of the physical and behavioral changes. Staff information influences the treatment process. DSPs are closest to IDD individuals, and it is their role to observe, describe, and report signs and symptoms of physical and behavioral changes to LPNs or RNs. The nurses pass the observed change(s) to the PCPs. During shifts, the staff must observe IDD individuals for any changes in physical or behavioral conditions and report their findings to immediate supervisors.

The fourth section of this module outlines the reporting of any changes observed in IDD individuals. In addition to observing signs and symptoms of physical and behavioral changes, the staff must know what to report, when, and how to make a report. Three categories of changes must be reported.

- Emergency medical conditions
- Non-emergency medical conditions

- Other physical or behavioral changes

Emergency conditions require immediate medical attention, and staff members should take quick and appropriate action to address the situation faced by IDD individuals. Some of the emergencies to consider include:

- Dangerous behavior
- Sudden numbness or slurring speech
- Not breathing
- No heartbeat or pulse
- Uncontrollable bleeding
- Accidents involving severe injury

The module emphasizes the significance of following protocol during emergencies. Staff members should call 911 IMMEDIATELY and always include essential details in the call: WHO, WHAT, WHEN, and WHERE. Besides, supervisors must be informed immediately of any emergency. An incident report should be generated immediately after the incident. The report should include the WHO, WHAT, WHEN and WHERE of action and the attained outcomes. At the same time, all the staff members on duty should file independent incident reports describing what they saw, hear, and action (s) taken. The report will be forwarded to RNs, LPNs, and management teams.

The module describes non-emergency medical circumstances as those physical or behavioral changes that are no immediate threats. However, they must be reported to the RN or LPN. When reporting these situations, the staff should outline the WHO, WHAT, WHEN, and WHERE the incidences occurred. Further, they should document the type of

action taken and the attained outcomes. Changes in IDD individuals' health status must be reported immediately to the LPN or RN.

The module ends with the participants sharing feedback on what they have learned throughout the training program. A post-test and pre-test questionnaire was administered via survey monkey to assess the participants' knowledge before and after participating in the training.

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