

Nutrition Education as a Community-Based Healthcare Intervention in St. Livingston, CA

Katja Setz

President,
Society of Educational Research, Canada

Abstract

Childhood obesity has been documented to yield school absenteeism and high drop-out rates, psychological problems associated with self-esteem and the quality of the children's life, parental absenteeism in workplaces due to pressure to attend to their obese children in health care settings, and high cost of health care. The main objective of this project was to conduct a nutrition education intervention with the intention of sensitizing parents to school-aged children about the importance of making informed food choices or nutritional diets. The target setting was in Livingston, with Guru Nanak Sikh Temple selected as an ideal physical location. Other participating groups included school representatives or administrators, community representatives, health care providers and practitioners, and leaders from other social institutions. Major challenges included linguistic constraints due to the multicultural nature of Livingston, financial barriers, and health record complexity in which sections of reports indicated childhood obesity arising from causes unrelated to food choices; suggesting that parents to these children would be excluded to avoid compromising the scope of the study. Upon project completion, findings revealed that the engagement of low-income parents in designing, developing, and evaluating childhood obesity prevention programs that are family-centered promises more fruitful outcomes. The implication for health care authorities in Livingstone is that such initiatives should be facilitated to assure desirable food choices in school environments and home settings to aid in preventing obesity, which proves to be costly to families and the region's general economy.

Keywords: *Nutrition, Healthcare*

Introduction

In the selected project, the central aim or purpose was to advocate for the prevention of childhood obesity via the implementation of nutrition education. According to Dietz, Caterson and Kopelman (2010), nutrition education constitutes the combination of education strategies relative to environment-based support while seeking to facilitate the voluntary adoption of nutrition- and food-related behaviors and other food choices perceived to be conducive to the well-being and health of target populations (Karnik & Kanekar, 2012). Imperatively, the context or setting of this intervention was in St. Livingston, CA. The selection of childhood obesity as the central subject of investigation and one that prompts an intervention was informed by a number of factors. For instance, Madden et al. (2013) documented that in this area, low levels of physical activity have been coupled with high food intake, with dense calories on focus. Limited success in curbing childhood obesity in this region has been associated with the challenge of reaching and engaging the children's parents in interventions. The two-month project strived to conduct a community needs and resources assessment before establishing a valid and reliable path perceived to yield fruitful outcomes.

Given the central aim and other specific objectives of the intervention, this project is important in various ways. For instance, childhood obesity has been associated with more immediate health risks such as breathing problems, diabetes, and high blood pressure, often

linked to cardiovascular disease (Schanzenbach, 2009). Esteves (2011) avowed that these risks account for high rates of school absenteeism due to hospital readmissions and even drop-out in some cases. As such, the project is important because it seeks to improve the living standards of children in St, Livingston, CA, eventually boosting their education standards while assuring better health. The trickle-down effect of this intervention is also projected to lie in increased life expectancy and an absence of childhood obesity-related comorbidities due to the capacity to make informed nutritional choices among parents, reducing the aforementioned immediate health risks associated with the condition. Childhood obesity is also associated with psychological problems that include depression and anxiety, lower self-reported quality of life and low self-esteem, social problems such as stigma and bullying (Dawson-McClure et al., 2014). Therefore, the project is important because its outcomes are projected to curb these social problems and, in turn, alter the potentially negative behavioral outcomes associated with obese children. Lastly, the regional expenditure on childhood obesity in St, Livingston, CA remains high (Demment, Jere, Haas and Olson, 2014). By intervening and sensitizing parents regarding the criticality of making informed choices about healthy foods, the project is important because it seeks to reduce the overall health care expenditure that is directed to services aimed at curbing childhood obesity and its associated comorbidities.

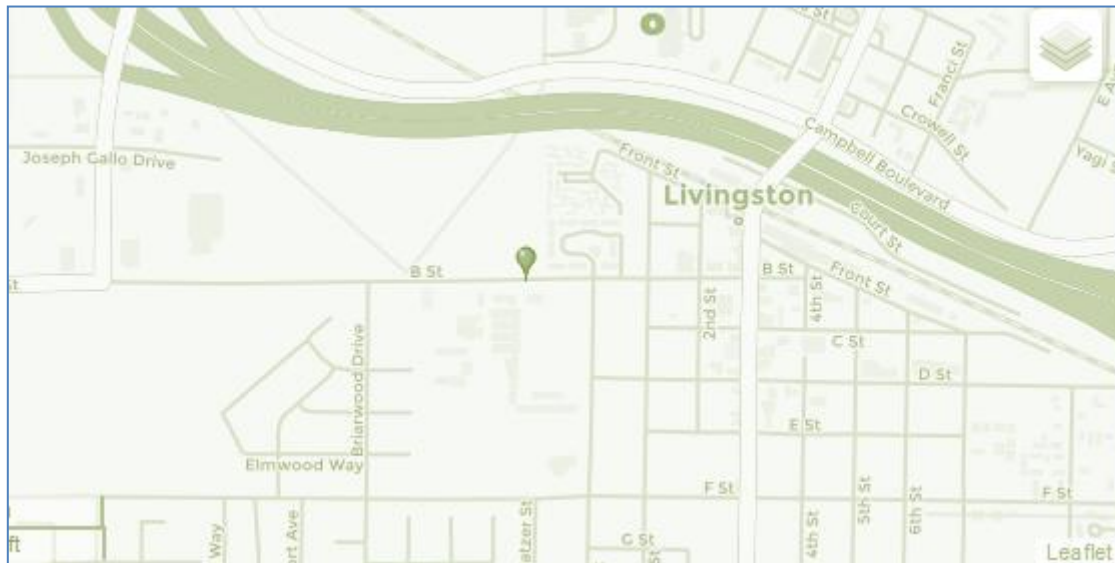
In support of this project is Dorothea Orem's Self-Care Deficit nursing theory. The theory holds that in most cases, patients are keen to exercise self-care. Specifically, it is advocated that these patients are more likely to recover holistically and quickly in situations where practitioners allow them to exercise the self-care to the highest level of their ability (Gao, Gordon and Wenjie, 2014). With requisites identified as a group of requirements or needs, Orem highlighted that in situations where individuals fail to meet the respective self-care requisites, a state of self-care deficit tends to arise. Therefore, this project was informed or guided by the theory to aid in determining the selected patients' and their parents' needs or requisites (nutrition education and the choice of healthy foods) before advocating for the provision of a supportive and positive environment towards informed decision making. Overall, the theory advocates for the need for Registered Nurses to engage in the determination of the perceived health care deficits surrounding patients and their families before defining support modalities. In this case, the deficit identified entailed inadequate education regarding healthy foods while the support modality defined involved community-based nutrition education in St, Livingston, CA.

It is also worth noting that this project's engagement in nutrition education was informed by major findings that have been reported in most of the existing literature or scholarly findings. For instance, children from low-income families are more likely to be diagnosed with obesity when compared to their counterparts from high-income earning groups due to imbalances in food choices (Esteves, 2011; Dawson-McClure et al., 2014; Demment, Jere, Haas and Olson, 2014). It has also been affirmed that in low-income family settings, children fail to access healthy diets; suggesting that chances of being obese tend to increase (Gao, Gordon and Wenjie, 2014; Lee et al., 2014; Birch and Ventura, 2009). The eventuality is that healthy food remains expensive and given the impact of earning on purchase behaviors, low-income earners are more likely to adopt an unhealthy diet. Informed by these mixed outcomes, the project sought to foster nutrition education towards assuring a healthy child population in St, Livingston, CA.

Methodology

Based in 884 B St, Livingston, CA 95334, this intervention project concerning nutrition education was conducted at Guru Nanak Sikh Temple. Apart from the provision of religious

programs, the selected setting has been renowned for youth, sports, and social programs, as well as regular seminars and conferences or workshops. From the demographic perspective, this setting is dominated by the Hispanics or Latino. Other groups include the Whites, Asians, American Indians, and African-Americans. It is also worth noting that from the gender perspective, male and female residents are distributed proportionately. Based on the last census, 60.4 percent of households in Livingston have children aged 18 and below (Dawson-McClure et al., 2014). Whereas these groups formed the target population of the project, the decision to engage their parents (rather than the children) was informed by affirmations that issues surrounding food choices lie in the hands of parental groups, inclusive of school administrators for the case of school-going children who have access to programs such as lunch programs.



In relation to the roles and responsibilities of the people involved, this intervention was based in a community setting but insights were gained from health care providers and practitioners, community leaders, and religious leaders. On the one hand, community leaders were used as entry persons to aid in accessing the intended population. Specifically, these leaders were served with information via pamphlets and brochures, upon which they were requested to extend the messages to the rest of the community regarding the main aim and other related objectives of the project or intervention. A similar approach was used regarding religious leaders whereby the groups were served with information via pamphlets and brochures, requested further to sensitize audiences regarding the project and its intended purpose. From the perspective of health care practitioners and providers, this group aided in tracking records about the prevalence of childhood obesity. Given the need to assure patient data privacy and confidentiality without contravening ethical specifications surrounding the handling of the data and even exposing to third parties, these providers and practitioners were used as entry persons to aid in securing consent from parents of children who had been diagnosed with the condition. Imperative to highlight further is that this project targeted school administrators who were sent invitation letters to attend the educational sessions in the community context, upon which it was projected that the group will extend the messages to their school settings and apply the knowledge gained while implementing programs such as lunches for school-age children.

Having identified these stakeholders, the initial sessions were marked by congregations of the groups' representatives (such as school administrators and community leaders). These groups were briefed about the intention of the project and broad categories of topics that would

be addressed, as well as the importance of attending the sessions; given the predicted beneficial role to the community's health. In turn, these representatives were allowed to inform the rest of the parental groups about the importance of the perceived intervention. Indeed, it was from this premise that the project's progress witnessed a significant number of parents attending the education sessions. From the perspective of the health care providers, practitioners, and settings, these groups were requested to liaise with visiting parents and even contact those who had had past visits related to their children's state of obesity to attend the sessions, with a positive response experienced.

The project was also guided by critical insights gained from the text by Sullivan (2013), titled *Becoming influential: A guide for nurses*. In this text, the two dominant or leading concepts entail influence and awareness. Specifically, Sullivan (2013) affirms that influential individuals in the field of nursing tend to yield beneficial outcomes such as enhanced team work and patient satisfaction. Similarly, the concept of awareness (as advocated by the author) holds that in multicultural settings, it is important for interventions to consider and accommodate differences in personal preferences, attitudes, opinions, objectives, and goals of community members, perceived to predict program success during change implementation. An application of the concept of influence was important to this project by ensuring that the community members were encouraged to attend the education settings, having been informed about the intended goal and objectives, as well as the perceived program benefits. From the perspective of Sullivan's concept of awareness, the attribute was important in guiding the nutrition education intervention in such a way that Livingston's multicultural nature saw the community members' differences acknowledged and accommodated accordingly. Specifically, the project was marked by interactive sessions to provide room for the members' expression of their views regarding food-related causes of childhood obesity in the community. In turn, the merits and drawbacks of these members' opinions were analyzed before arriving at valid and informed conclusions. The eventuality was a case in which the project's intended messages about nutrition and childhood obesity were delivered successfully while ensuring that the opinions and preferences of the members were incorporated as deemed appropriate; a beneficial trend that shunned possible resistance to change as the members felt involved and their opinions valued highly.

Results

During the first month, community members played an equal and active role with the researcher in a quest to plan and conduct a community assessment to plan the nutrition education intervention. The second month was marked by the implementation of the intervention before analyzing the outcomes via a pre-post cohort design. Components of the intervention included a 6-week parent-led initiative for strengthening media literacy, social networks, resource-related empowerment for healthy lifestyles, and conflict resolution, an integration of nutrition counseling into family activities, communication campaign towards raising parental awareness about their children's weight statuses, and revisions to letters sent to families reporting body mass index (BMI). The post intervention was compared to the pre intervention and the former revealed significant improvements in dietary intake (macronutrient and energy intake). These trends were informed by BMI scores. At the post intervention stage, parents were marked by a desirably greater self-efficacy towards promoting healthy eating, with their children on focus. Additionally, the frequency of parents at the post intervention stage to offer vegetables and fruits to their children was marginally great.

Despite these promising outcomes, the intervention did not go without significant barriers. For instance, the multicultural nature of Livingston translated into a notable challenge

of cultural and linguistic barriers. From this perspective, success regarding the sensitization of members from varying socio-cultural backgrounds regarding the importance of participating in the project was highly threatened. However, interpreters and representatives of specific racial groups were used as entry persons and interpreters to shun the looming crisis of resistance to change. Similarly, the expansive nature of this intervention in the wake of time constraint threatened to compromise the degree of success. To address the barrier, the initial stage was marked by the training of group representatives (such as sections of members from the school settings, health care settings, religious settings, and other social institutions) before allowing these individuals to handle specific groups of parents. Imperative to note is that whereas a degree of decentralization was achieved, the themes of discussion were common and the role of the researcher lay in the coordination of the program while monitoring progress and reaching out to these smaller groups to discern major interests and needs or preferences. Given the need to produce materials such as pamphlets and brochures and distribute them to relevant authorities during the participant recruitment stage, financial constraints formed an additional barrier. To address this challenge, health care authorities in Livingston were sensitized regarding the perceived beneficial effects of the nutrition education intervention before being prompted to provide support or facilitation as deemed appropriate.

The last barrier concerned the health records obtained from provider and practitioner groups. In some instances, sections of the records indicated diagnoses pointing to childhood obesity but the causes of the condition among groups of children were not health-related. In some cases, attributes such as psychological factors, medications, physical inactivity, and genetics were cited to have accounted for childhood obesity. At the recruitment stage, this variation proved confusing. Given that the intervention concerned nutrition education, the aspect of content-specificity would imply that only medical records indicating childhood obesity cases arising from overeating or the use of diets high in simple carbohydrates were viable for selection. Due to the need to discard records indicate childhood obesity arising from causes other than nutrition (to avoid compromising the project's scope), parental groups selected via the help of health care providers and practitioners were fewer. However, this challenge was countered by requesting religious leaders to consult parents and prompt them to attend the education sessions. Overall, the barriers were handled accordingly and the impact posed by these attributes (to the overall results) was not marginally significant.

Conclusion

Nutrition education is seen as a transformative paradigm poised to bridge the gap between practice and science, aiding in the elimination of health disparities while addressing the challenge of research funding. Whereas nutrition education has been utilized successfully towards the development of faith-based, afterschool, and community obesity interventions, this project reveals that an engagement of low-income parents in designing, developing, and evaluating childhood obesity prevention programs that are family-centered promises more fruitful outcomes. The empowerment framework of this project forms an additional hybrid that makes nutrition education a crucial departure from conventional approaches seeking to engage families in the prevention of childhood obesity. Evidence from the project suggests that by adopting an empowerment-oriented and parent-centered approach, various advantages accrue in relation to nutrition education as an approach for preventing childhood obesity. For example, this approach steers parent engagement. This observation is evidenced by the project's project in which an empowerment-oriented and parent-centered approach witnessed about half of the participants attend at least 50 percent of the meetings over the project or intervention phase. Furthermore, sections of the participants expressed the desire to hold more meetings after the intervention in a quest to plan new obesity prevention projects. Another advantage of the

aforementioned approach is that it builds on the pre-existing resources at the families' disposal (such as BMI reporting). Lastly, the approach assures sustainability via capacity building (such as the training of community representatives to emerge as parent leaders in the target community of Livingston).

References

1. Birch, L. L. and Ventura, A. K. (2009). Preventing Childhood Obesity: What Works? *International Journal of Obesity*, 33, 74-81
2. Dawson-McClure, S. et al. (2014). Early Childhood Obesity Prevention in Low-Income, Urban Communities. *Journal of Prevention & Intervention in the Community*, 42(2), 152-166
3. Demment, M., Jere, M., Haas, D. and Olson, C. M. (2014). Changes In Family Income Status And The Development Of Overweight And Obesity From 2 To 15 Years: A Longitudinal Study. *BMC Public Health*, 14(1), 1-20
4. Dietz, W. H., Caterson, I. D. & Kopelman, P. G. (2010). *Clinical obesity in adults and children*. Chichester, West Sussex: Wiley
5. Esteves, T. (2011). *Food for Thought: Is a French Fry a Vegetable?* Association for Talent Development, ATD
6. Gao, Y., Gordon, J. and Wenjie, S. (2014). Is Poverty Associated With Obesity Among American Children? *Proceedings of the National Academy of Sciences of the United States of America*, 111(22), 2237
7. Karnik, S. & Kanekar, A. (2012). Childhood Obesity: A Global Public Health Crisis. *International Journal of Preventive Medicine*, 3(1), 1-7
8. Lee, H. et al. (2014). Longitudinal Associations between Poverty and Obesity from Birth through Adolescence. *American Journal of Public Health*, 104(5), 70-76
9. Madden, A. M. et al. (2013). A Kitchen-Based Intervention to Improve Nutritional Intake from School Lunches in Children Aged 12-16 Years. *Journal of Human Nutrition and Dietetics*, 26(3), 243-51
10. Schanzenbach, D. W. (2009). Do School Lunches Contribute to Childhood Obesity? *Journal of Human Resources*, 44(3), 684-709
11. Sullivan, E. J. (2013). *Becoming influential: A guide for nurses* (2nd Ed.). Boston: Pearson

Sentinel Events and Contemporary Medical Practices

Michael D. McIntyre

Research Scholar

Russian Institute of Cultural Research

Abstract

The purpose of this qualitative descriptive case study is to examine the nature of medication errors in the retail pharmaceutical context and the factors that contribute to these errors. The population of study will be the current staff of retail pharmaceutical organizations in the Philadelphia, Pennsylvania Area. The study will target 100 Pharmacists from CVS Pharmacy and Wal-Mart Pharmacy. Pharmacists will be interviewed at appropriate times, and the researcher will seek to gain more understanding of the types of medication errors registered in their organization, the seriousness of the errors, and the factors contributing to these errors. The data will also include organizational records and observation of the medication dispensing and management practices at the retail pharmaceutical industry. The implication for social change includes the potential to provide leaders in the retail pharmaceutical industry with information that will help them address the issue of medication errors. This qualitative descriptive case study seeks to investigate the problem by exploring the nature of medication errors in the retail pharmaceutical context and associated factors. The study will focus on a population drawn from the current staff of retail pharmaceutical organizations in the Philadelphia, Pennsylvania Area. Findings of the study will help leaders in the retail pharmaceutical industry to address the issue of medication errors. The study will also advance research on the subject of medication safety by identifying new areas for future research.

Keywords: medication, Pharmacy, safety etc

Introduction

Medication errors are common in the healthcare setting and can lead to adverse events. Ojerinde and Adejumo (2014) define medication errors as any inappropriate use of medication that causes or has a potential of causing harm to the consumer. Medication errors can occur in different forms including wrong prescriptions, wrong transcription, wrong drug formulation, and administration of the drug in the wrong dosage (Wei, Min, Ming, Sheng & Ahmad, 2015). To deal with medication errors, stakeholders have directed little effort to retail pharmaceutical organizations despite the fact that these pharmaceutical companies also contribute to medication errors such as prescribing errors due to poor labeling (Wei, et al., 2015). This study will examine the factors contributing to medication errors in the U.S retail pharmaceutical context with the aim of understanding the causes and developing a reliable solution.

Millions of Americans consume medications each day to treat illnesses, alleviate pain, or prevent sickness (US Department of Health Services, 2014). However, while medication has improved the quality of life of many citizens, it has also become a serious cause of harm to the population of the United States because of the increase of pharmaceutical errors (US Department of Health Services, 2014). Statistics from the US Department of Health Services (2014) indicate that adverse drug events lead to 280,000 hospital admissions every year. Cases of adverse drug events are likely to increase in the future due to sustained growth in the consumption of medications. Kantor, Rehm, Haas, Chan, and Giavannucci (2015) reported that the use of prescription drugs by American adults increased by 8% between 1999 and 2012. In 2006, 82% of Americans used at least one prescription drug, dietary supplement, or over the counter medication while 29% were using more than one prescription medication (Kantor et al., 2015). As the number of people using medication increases, the probability of medication errors also increases significantly.

The problem is that although a lot of effort has been made to address drug safety issues, not all the stakeholders and departments have achieved progress in this journey and pharmaceutical errors continue to happen at a high rate (Kantar et al., 2015). In fact, major progress is only visible in the clinical environment; little effort has been put in the retail pharmaceutical setting (Kantar et al., 2015). Since retail pharmaceuticals play a central role in meeting the medication needs of the population, they play an important role in influencing incidents of medication errors (Cheung, Bouvy, & Smet, 2009). Several studies investigated the pharmaceutical errors, but none of those studies prescribed a fix nor did they determine the cause of the errors (Midlog, 2014; Keer, Williams, Coke & Aschcroft, 2013; Erdmann, Garcia, Loureiro, Menteiro, & Brunharo, 2016). Additionally, these studies concentrated on Hospitals only and not on retail pharmacies.

The study will be guided by the following research questions:

RQ1: What is the nature of medication errors in the U.S. retail pharmaceutical context?

RQ2: What factors contribute to medication errors within the U.S retail pharmaceutical context?

Methods

This study will utilize the qualitative research method because there is little information about the specific problem of pharmaceutical errors and qualitative research fits perfectly when investigating new phenomena thereby allowing greater adaptation to the relationship between study participants and the researcher (Creswell, 2013). This means that it is possible for the researcher to ask open-ended questions or follow-up questions based on the responses given to clarify issues. The researcher is also at liberty to ask different participants different questions and increase or decrease the number of participants during the study. The qualitative method is also more suitable to the purpose of the study, which is to gain an in-depth understanding of the nature of the medication errors and factors that contribute to these errors in the retail pharmaceutical context. A qualitative method will facilitate deeper inquiry by providing flexibility when it comes to data collection (Mitchell & Jolley, 2012). The researcher will get the opportunity to engage authentically with study participants resulting in the collection of rich data. Another advantage of the qualitative approach is that it will not limit participants' responses leading to a development of deeper insights regarding the research issue.

The researcher will utilize descriptive case study design. Descriptive studies focus on collecting information without manipulating variables or changing their environment (Mitchell & Jolley, 2012). A descriptive case study design is appropriate for this work because the researcher does not have control over the study variables. Hence, he must study them as they occur in their natural environment. The case study design focuses on studying an individual, a group, or situation using multiple methods of data collection (Baxter & Jack, 2008). In this case, the researcher will focus on retail pharmaceutical companies operating in the Philadelphia, Pennsylvania Area. This design is appropriate because it also facilitates the collection of in-depth data. The researcher will not only obtain information from pharmacists but also capture contextual information by using other methods of analyzing data such as observation.

Results

Historically, it has been challenging to deal with medication errors due to a lack of reliable diagnostics and information about the same (Kantar et al., 2015). In fact, causalities due to medication in the past were higher than they are today (Kantar et al., 2015). Thanks to better diagnostic tools, proper labeling, advancement in technology, improvement in pharmacists and physician training, interdisciplinary cooperation, and patient awareness, the incidence of prescription errors have reduced in relative terms (Kantar, they are still high in absolute terms hence the need to address them (Kantar et al., 2015).

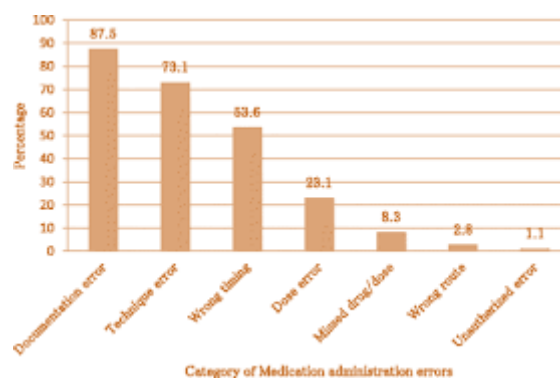
Type of medication error	N (%)	Category
Wrong time	139 (48.3)	C
Wrong transcription	38 (13.2)	B
Incomplete prescription	33 (11.5)	A
Illegible prescription	32 (11.0)	A
Wrong dose	20 (7.0)	C
Wrong prescription	19 (6.6)	A
Wrong medication	6 (2.1)	C
Wrong route	1 (0.4)	C
Wrong patient	0 (0)	C

A: ordering error; B: transcribing error; C: administration error.

Several studies investigated the pharmaceutical errors but none of those studies prescribed a fix nor did they determine the cause of the errors (Midlog, 2014; Keer, Williams, Coke & Aschcroft, 2013; Erdmann, Garcia, Loureiro, Menteiro, & Brunharo, 2016). Additionally, these studies concentrated on hospitals only and not on retail pharmacies.

There is a wide body of literature examining the nature of medication errors in the healthcare system. Choi, Park, Hwang, and Baste (2014) investigated medication errors in a computerized physician order entry system and found that the error rate was 19%, and over 66% of errors were due to incorrectly entered prescriptions. Bahrani, Eriksson, Høglund, and Midlov (2014) found that the error rate among elderly patients upon admission to hospital was 46%. Other types of errors that literature has pointed out include documentation errors, wrongtime, wrong dosage, omission and prescription errors (Keers, Williams, Cooke, & Ashcroft, 2013; Erdmann, Garcia, Loureiro, Menteiro, & Brunharo, 2016). These studies have, however, explored the nature of medication errors in the hospital setting without providing any cause or suggesting a fix.

Empirical evidence reveals that medication errors result from a wide range of factors. Some of these factors include staffing levels and workload, practitioners' knowledge and experience, attitude and culture of staff, location and packaging of medications, and systems used in the management of medications (Ojinde & Adejumo, 2014; Wei et al., 2015; Anyika & Omosembi, 2016). Most of existing studies explore risk factors for medication errors within the hospital setting. There is also a gap in evidence regarding nature of medication errors and factors associated with these errors in pharmaceutical organizations operating within the community setting (Wei et al., 2015).



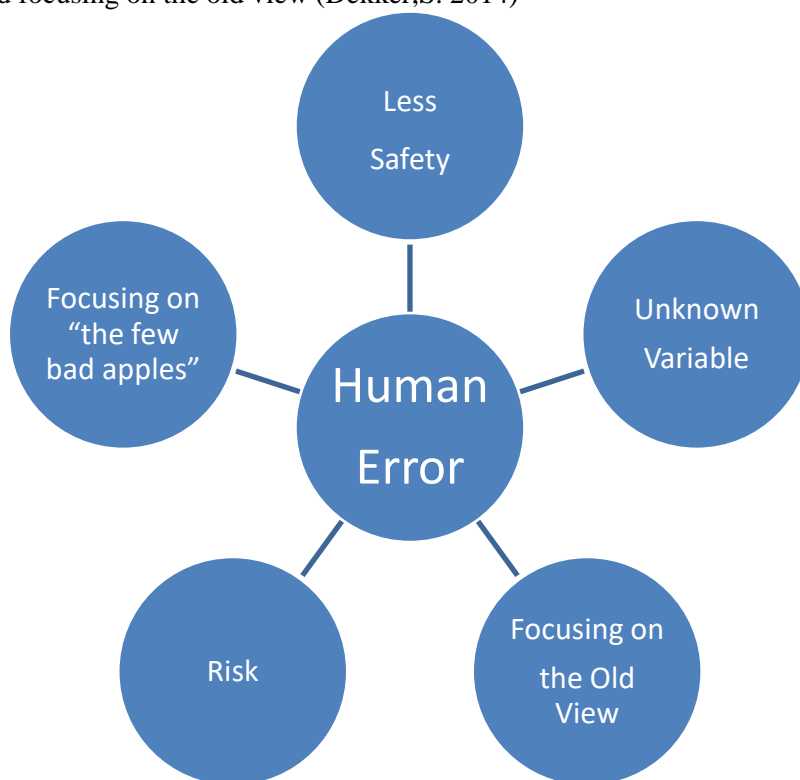
Numerous studies have shown that medication errors are rampant (Kantar et al., 2015). For instance, Velo and Minuz (2009) note that medication errors, which can be in the form of writing (prescription errors) or in the form of medication and dosage provided (prescribing errors), are common in hospitals and in general practice and these sentiments are echoed by Araghi et al. (2016); Hincapie, Warholak, Altyar, Snead, and Modisett (2014); Joosten et al. (2013); van Mil et al. (2016), and Odukoya, Stone, and Chui (2014). Empirical evidence also show that medication errors result from a wide range of factors including staffing levels and workload, practitioners' knowledge and experience,

attitude and culture of staff, location and packaging of medications, and systems used in the management of medications (Ojinde & Adejumo, 2014; Wei et al., 2015; Anyika & Omosembi, 2016).

In the past, human error was viewed as a cause of the accident. However, the new view is that human error is a symptom of trouble deeper inside a system (Dekker, 2014). In the old view of human error, one had to seek failure to explain it (Armitage, 2009). This means that one had to explain failure by finding the bad judgment, the inaccurate assessments of situations, and the wrong decisions that people made leading up to the failure (Dekker, 2014). In the new view of human error, failure is explained by not trying to find where people went wrong, but by finding how the assessment of a situation by a “failed” individual made sense at a specified time in the past considering the circumstances that prevailed at the time (Dekker, 2014).

The new view of The Human Error Theory by Sydney Dekker is better than the old view because it regards people as vital to creating safety; human beings have the ability to negotiate between safety and other pressures in the real world (Dekker, 2014). The new view also regards human errors as a demonstration of the ability of human beings to negotiate between safety and other pressures even in the midst of ambiguous evidence and uncertain outcomes (Dekker, 2014).

The conceptual framework of my pieces is based on the new human error theory. As per Sydney Dekker, the difference between the old theory (the bad apple theory) and the New Human Error Theory is that the accident or error is the result of the employee, not the situation (Dekker, S. 2014). Some of the situations that make human error more likely are less safety, unknown variables, the bad apple theory, and focusing on the old view (Dekker, S. 2014)



New Human Error Theory

Conclusion

The purpose of this qualitative descriptive case study has been to examine the nature of medication errors in the retail pharmaceutical context and the factors that contribute to these errors. The population of study has been the current staff of retail pharmaceutical organizations in the Philadelphia, Pennsylvania Area. The study has targeted 100 Pharmacists from CVS Pharmacy and Wal-Mart Pharmacy. Pharmacists have been interviewed at appropriate times, and the researcher will seek to gain more understanding of the types of medication errors registered in their organization, the seriousness of

the errors, and the factors contributing to these errors. The data has also included organizational records and observation of the medication dispensing and management practices at the retail pharmaceutical industry. The implication for social change includes the potential to provide leaders in the retail pharmaceutical industry with information that will help them address the issue of medication errors. This qualitative descriptive case study has investigated the problem by exploring the nature of medication errors in the retail pharmaceutical context and associated factors. The study has focused on a population drawn from the current staff of retail pharmaceutical organizations in the Philadelphia, Pennsylvania Area. Findings of the study will help leaders in the retail pharmaceutical industry to address the issue of medication errors. The study also advances research on the subject of medication safety by identifying new areas for future research.

References

1. Anyika, E., & Omosebi, O. (2016). Dispensing error and uncertainty: Perspectives of pharmacists in a tertiary health facility in Lagos, Nigeria. *Journal of Hospital Administration*, 5 (1), 100-106
2. Araghi, S., Sharifi, R., Ahmadi, G., Esfehiani, M., & Rezaei, F. (2016). The Study of Prescribing Errors Among General Dentists. *Global journal of health science*, 8(4), 32.
3. Armitage, G. (2009). Human error theory: relevance to nurse management. *Journal of nursing management*, 17(2), 193-202
4. Bahrani, L., Ericksson, T., Hoglund, P., and Midlov, P. (2014). The rate and nature of medication errors among elderly upon admission to hospital after implementation of clinical pharmacist-led medication reconciliation. *European Journal of Hospital Pharmacy*, 21 (1), 156- 160.
5. Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13 (4), 544- 559.
6. Cheung, K., Bouvy, M., & Smet, P. (2009). Medication errors: The importance of safe dispensing. *British Journal of Clinical Pharmacology*, 67 (6), 676- 680.
7. Choi, I., Park, H., Hwang, H., & Bates, W. (2014). Understanding the nature of medication errors in an ICU with a computerized physician order entry system. *Plos One*, 9 (12), 114- 121.
8. Creswell, J. (2013). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. New York, NY: Sage Publications Inc.
9. Dekker, S. (2014). *The field guide to understanding 'human error'*. Ashgate Publishing, Ltd..
10. Erdman, T., Garcia, J., Loureiro, M., Monteiro, M., & Brunharo, G. (2016). Profile of drug administration errors in anesthesia among anesthesiologists from Santa Catarina. *Brazilian Journal of Anesthesiology*, 66 (1), 105- 110.
11. Hincapie, A. L., Warholak, T., Altyar, A., Snead, R., & Modisett, T. (2014). Electronic prescribing problems reported to the Pharmacy and Provider ePrescribing Experience Reporting (PEER) portal. *Research in Social and Administrative Pharmacy*, 10(4), 647-655
12. Joosten, H., Drion, I., Boogerd, K. J., van der Pijl, E. V., Slingerland, R. J., Slaets, J. P., ... & Bilo, H. J. (2013). Optimising drug prescribing and dispensing in subjects at risk for drug errors due to renal impairment: improving drug safety in primary healthcare by low eGFR alerts. *BMJ open*, 3(1), e002068.
13. Kantor, E., Rehm, C., Haas, J., Chan, A., & Giavannucci, E. (2015). Trends in prescription drug use among adults in the United States from 1999- 2012. *The Journal of American Medical Association*, 314 (17), 1818- 1830.
14. Keers, R., Williams, D., Cooke, J. & Ashcroft, M. (2013). Prevalence and nature of medication administration errors in healthcare settings: A systematic review of direct observational evidence. *The Annals of Pharmacotherapy*, 47 (2), 237- 256.
15. van Mil, J. F., Westerlund, T., Brown, L., Chen, T. F., Henman, M., Hersberger, K., ... & Schulz, M. (2016). Medical care and drug-related problems: Do doctors and pharmacists speak the same language?. *International journal of clinical pharmacy*, 38(2), 191-194.
16. Mitchell, M., & Colley, J. (2012). *Research Design Explained*. New York, NY: Cengage Learning.

17. Odukoya, O. K., Stone, J. A., & Chui, M. A. (2014). E-prescribing errors in community pharmacies: exploring consequences and contributing factors. *International journal of medical informatics*, 83(6), 427-437
18. Ojerinde, A., & Adejumo, P. (2013). Factors associated with medication errors among health workers in University College Hospital, Nigeria. *IOSR Journal of Nursing and Health Science*, 3 (3), 22-33.
19. US Department of Health Services (2014). *National Action Plan for Adverse Drug Event Prevention*. Retrieved from <https://health.gov/hcq/pdfs/ade-action-plan-508c.pdf>.
20. Velo, G. P., & Minuz, P. (2009). Medication errors: prescribing faults and prescription errors. *British journal of clinical pharmacology*, 67(6), 624-628
21. Wei, L., Min, T., Ming, E., Sheng, J., & Ahmad, K. (2015). Qualitative research on medication safety among nurses and pharmacists in Hospital Miri. *Sarawak Journal of Pharmacy*, 1 (15), 1-12.

Healthcare Quality: A Comparison of Memorial Medical Center and Doctors Medical Center in Modesto, CA

Zilan van Hedel

Phd. Student

Denmark Engineering Applications and Research Institute

Abstract

Memorial Medical Center has been licensed for 423 acute care beds. In addition, the institution is affiliated with Sutter Health. Indeed, the latter is a not-for-profit association incorporating service providers. Apart from the main specialties highlighted above, Memorial Medical Center has also been documented to offer newborn intensive care. Established in 1970 with a capacity of 99 beds, the recent improvements are attributed to the period after 1996, which has seen it gain affiliation with Sutter Health. Regarding Doctors Medical Center, the institution was established in 1962 and sought to offer healthcare services to the surrounding community. At the time, it was referred to as Doctors Hospital of Modesto before being renamed in 1979. Currently, the facility has over 2,600 employees and forms a dynamic facility with 461 beds. Hence, comparing the two institutions suggests that Doctors Medical Center has a relatively higher bed capacity (461) compared to Memorial Medical Center's 423 beds. Based on the analysis of the two institutions, a higher bed capacity makes the Doctor Medical Center of more preference. In addition, the institution is preferred due to the capacity to meet patient demands that are deemed challenging. Similarly, the institution remains superior due to the presence of highly specialized expertise and hands-on attention that promise to minimize medication errors while assuring patient satisfaction and, in turn, curbing avoidable re-hospitalizations.

Keywords: *Healthcare, Medical etc.*

Introduction

Located in Modesto, Calif, the Doctors Medical Center is a surgical and general medical facility. Specialties include cancer, nephrology, gastroenterology & GI surgery, diabetes, and endocrinology, and cardiology and heart surgery. Others include urology, pulmonology, orthopedics, and neurology and neurosurgery. Specific procedures conducted at the facility include lung cancer surgery, knee replacement, hip replacement, and procedures addressing heart failure. Other procedures include heart bypass surgery, colon cancer surgery, chronic obstructive pulmonary disease, aortic valve surgery, and abdominal aortic aneurysm repair. Memorial Medical Center is also located in Modesto, Calif. Similar to the Doctors Medical Center, Memorial Medical Center is also a surgical and general medical facility. Specialties include urology, pulmonology, orthopedics, neurology & neurosurgery, and nephrology. Others include geriatrics, gastroenterology & GI surgery, diabetes & endocrinology, cancer, and gynecology (Altman and Shactman, 2011). It is further notable that the procedures conducted at Memorial Medical Center are similar to those conducted at the Doctors Medical Center.

Methods

Memorial Medical Center has been licensed for 423 acute care beds. In addition, the institution is affiliated with Sutter Health. Indeed, the latter is a not-for-profit association incorporating service providers. Apart from the main specialties highlighted above, Memorial

Medical Center has also been documented to offer newborn intensive care. Established in 1970 with a capacity of 99 beds, the recent improvements are attributed to the period after 1996, which has seen it gain affiliation with Sutter Health. Regarding Doctors Medical Center, the institution was established in 1962 and sought to offer healthcare services to the surrounding community. At the time, it was referred to as Doctors Hospital of Modesto before being renamed in 1979 (Adler and Rehkopf, 2009). Currently, the facility has over 2,600 employees and forms a dynamic facility with 461 beds. Hence, comparing the two institutions suggests that Doctors Medical Center has a relatively higher bed capacity (461) compared to Memorial Medical Center's 423 beds. Whereas Memorial Medical Center is an affiliate of Sutter Health, the Joint Commission on Accreditation of Healthcare Organizations has accredited Doctors Medical Center. Conversely, the State of California has licensed Doctors Medical Center, suggesting that it remains an approved provider charged with the provision of benefits to insurance plans, stretching beyond Medi-Cal and Medicare.

Prior to its affiliation with Sutter Health (in 1996), Memorial Medical Center grew with the community due to the affirmation that the community's contributions and its health care needs guided the institution. Hence, a volunteer board constituting local leaders governed Memorial, besides other health care professionals. It is further notable that residents, including those from the neighboring counties, formed the shareholders. Hence, these groups reinvested funds that would remain after paying for patient care in a quest to enhance treatment. Other motivations behind the community's active participation included the need to provide health education and research, as well as improve equipment and facilities.

Results

Patient safety, outcomes, and experience: This measure refers to the capacity of health care providers to prevent medication errors and accidents across the hospital (Altman and Shactman, 2011). At Memorial Medical Center, findings affirm that higher numbers point to better survival odds with a trend marked by the treatment of more patients and the presence of relatively few complications. At the Doctors Medical Center, findings illustrate the presence of a healthcare institution characterized by effective care of patient demands that are deemed challenging. The institution is also marked by the presence of highly specialized expertise and hands-on attention.

Staff responsiveness: This indicator refers to the ability of members of the team or health care practitioners to employ practices that seek to meet the prevailing patient demands (An, Braveman, Dekker, Egerter and Grossman-Kahn, 2011). Indeed, mixed outcomes accrue regarding the extent to which staff responsiveness is embraced in the two institutions. At the Doctors Medical Center, findings suggest an alignment of the staff personal goals to the central mission and vision of the organization. As such, the practitioners demonstrate a high level of concern for the firm's future, reflecting the urgency in which the hospital is expected to adapt. On the other hand, the situation at Memorial Medical Center reveals a positive perception of leadership training whereby the practitioners feel prepared for their roles. Thus, the attribute of staff responsiveness depicts the Doctors Medical Center's staff as a group that is ready to steer adaptability and embrace dynamism while the employees of Memorial Medical Center are determined to spearhead transitional and transformative leadership that seeks to assure quality care.

Staff integration and collaboration: This quality entails the pooling of multi-disciplinary staff from various specialties (Adler and Rehkopf, 2009). These members, emerging from complementary and conventional health arenas, pool their knowledge in a quest

to establish a treatment and information protocol for the respective patients. As the staff meet, they pool the findings and devise a program deemed ideal based on the issues with which the patient presents. Similar to the earlier indicators, a comparison of the two healthcare organizations reveals mixed outcomes. At Memorial Medical Center, findings suggest the presence of a highly motivated team with excellent training in their respective specialties. As such, this institution houses staff members with excellent communication, treatment, and diagnostic skills. At the Doctors Medical Center, the medical team strives to treat the whole person and the root cause, rather than the disease with which the patient presents. Hence, the staff at this institution pulls together to establish a common system of analyzing the pathophysiology of patients before creating guidelines aimed at yielding integrative healing programs.

Personalized assessment and care: This attribute refers to the decision by a healthcare institution to address the patients' specific needs and focus on their totality (Altman and Shactman, 2011). In the two institutions, it is documented that personalized lifestyles and treatment plans form key factors considered during the presentation of test reports and the analysis of the environment surrounding the patients' conditions. However, the key difference is that the Doctors Medical Center emphasizes new high tech integrated treatments while Memorial Medical Center combines these with traditional treatments to accelerate the healing process.

Conclusion

Based on the analysis of the two institutions, a higher bed capacity makes the Doctor Medical Center of more preference. In addition, the institution is preferred due to the capacity to meet patient demands that are deemed challenging. Similarly, the institution remains superior due to the presence of highly specialized expertise and hands-on attention that promise to minimize medication errors while assuring patient satisfaction and, in turn, curbing avoidable re-hospitalizations.

References

1. Adler, N. E. and Rehkopf, D. H. (2009). U.S. disparities in health: Descriptions, causes, and mechanisms. *Annual Review of Public Health*, 29, 235-252
2. Altman, S. H. and Shactman, D. (2011). *Power, politics, and universal health care: The inside story of a century-long battle*. Amherst, NY: Prometheus Books
3. An, J., Braveman, P., Dekker, M., Egerter, S. and Grossman-Kahn, R. (2011). *Work matters for health*. Princeton, NJ: Robert Wood Johnson Foundation