

Maggot debridement therapy article review

[Sociology](#), [Ethics](#)



Introduction

The purpose of this study is to compare two nursing articles in terms of their research purpose, research methodology, and research designs. The articles which have been chosen for this study are based the topic of Maggot Debridement Therapy.

Following are the articles which have been chosen for this analysis:

- Larval therapy for leg ulcers (VenUS II): randomized controlled trial - Quantitative Study
- Patients' perceptions and experiences of larval therapy - Qualitative Case Study

The first article has been written by Dumville. The article was published in the year 2009 in the BMJ journal. The second article Kitching. The article was published in the year 2004 in the Journal of Wound Care.

This assignment aims to communicate a clear understanding of differences in research purpose and research methodology used in qualitative and quantitative research design.

Discussion

These two articles will be compared in terms of the following factors:

- Research question and research problem
- Theoretical framework
- Ethical issues presented in the studies
- The methodologies used in the study

- Sampling technique and data collection methods used
- The application of findings to the clinical setting

Research question and research problem

The problem discussed in the quantitative study is an increase in the number of patients who are facing the problem of venous leg ulcers. The cause of these ulcers is the venous disease. An important way to get rid of these wounds is the removal of devitalized tissue from the surface. This process is called debridement. It is accepted that the larval therapy has the ability to treat these wounds (Kitching, 2004).

The qualitative study is based on the analysis of the perceptions of patients about larval therapy a single woman. The research aimed to determine if the therapy is acceptable to patients suffering from ulcers and wounds.

In the quantitative research, the research question focused on determining the relationship between variables that were wounds and larval therapy. This shows that in quantitative research method, the purpose of research question is to explore the relationship between variables. This allows researchers to develop a framework for the study.

On the other side, in the qualitative study, the research question aimed to explore the acceptance of the maggot therapy for treating necrotic wounds.

In qualitative research, the research question is used to explore the phenomenon in general (Bertrand & Fransoo, 2002).

Theoretical framework

The quantitative and qualitative studies selected for analysis lacked theoretical framework. In the quantitative study, theoretical framework

included a background of the maggot debridement therapy. However, in the qualitative study, the focus was on the perceptions and experiences of patients (Golafshani, 2003). Surely we must note the following fact, in the mid-40s this therapy was used in 300 U. S. hospitals. In the 90s, high bacterial resistance to antibiotics of some bacteria that caused the wounds would heal was not "reinvented" this technique as old going back to the very shamanism.

The approach for the theoretical framework, used in the quantitative study was deductive. In this approach, the research starts from a theory and then the research is conducted to test the theory. The quantitative study started with a review of the use of maggots to treat wounds. After this, the materials and methods used for conducting the study were discussed. The approach used in the qualitative study is inductive. In the inductive approach, data is used to establish a brief summary. By using inductive approach qualitative research derives findings from the data (Sandelowski, 2000).

Ethical Issues Present in the Study

When conducting a study, it is important to consider ethical issues involved in a research. Some of the ethical issues that need to be considered when conducting a study include the confidentiality of participants and the use of reliable and credible sources. The considerations for these ethical issues results in increasing the reliability and validity of a research.

The quantitative research conducted on maggot therapy gathered primary data from different participants. The identity of those patients was not revealed in the study in order to ensure confidentiality and privacy. The sources used in the study were cited and credited in order to avoid

plagiarism. The participants who participated in the study gave informed consent. The participants chosen for the study had mixed venous or arterial leg ulcers. The participants were randomized to the controlled trial after obtaining their approval (Dumville, 2009).

The qualitative study on maggot debridement therapy was based on data collected from five women and one man. In order to conduct the study, ethical approval of participants was obtained. The researcher approached all participants individually in order to ensure that they give informed consent. The patients selected for this study had a larval therapy; therefore, they were able to support or refute the idea. The researcher of the study played the dual role in the study. The dual roles performed by the researcher were of the researcher and a nurse. The researcher did not force or urge any patient to participate in the study.

Ethical issues should be considered in all kinds of research. The research process involves several issues which must be taken care of. For instance, it is not ethical to make generalizations about a large population group on the basis of a study based on a limited sample size. Furthermore, the participants' right to privacy and confidentiality is also an ethical issue that needs to be considered. The consideration for ethical issues increases the effectiveness of a research. Therefore, the protection of human participants and sources used in the research is imperative (Onwuegbuzie & Collins, 2007).

The consent of patients for the therapy was determined in the qualitative study. Maggots are generally described as the 'yuck factor by' the public. Furthermore, in the case of ischaemic wounds, the use of maggot

debridement therapy might be painful because the wounds of such nature are already hypersensitive. When maggots move onto the area of wound, they are felt by the patient (Smith, 2008).

The methodologies used in the study

The quantitative study conducted on the topic was pragmatic in nature. The method used to conduct the study was randomized control trial. The trials occurred in twenty two centers in the United Kingdom. The participants for the study were selected from ulcer clinics, hospital wards, and outpatient departments of hospitals such as dermatology or surgery, and nurse caseloads. For the purpose of data analysis, SAS version 9. 1 was used. The significance testing was testing to determine the significance with two-sided significance level of 5%.

In the qualitative study, the phenomenological approach was adopted. The approach was used on six patients. The patients selected for the study were interviewed through an unstructured approach. The interviews consisted of open ended questions.

Sampling Methods

The choice of sampling methods is also associated with the results of a research (Yin, 2009). The sampling methods used in quantitative and qualitative research studies are different. The sample size of quantitative research is larger than that of qualitative research (Teddlie & Yu, 2007). In the quantitative study, the sample size consisted of 267 patients. The patients selected for randomized control trials had at least one mixed venous or venous and arterial ulcer.

The sample selected for the qualitative study consisted of five women and one man. The age range of participants was from seventy-nine to ninety-three years. The sampling strategy of this research was weak because it did not select an equal number of male and female participants. All participants selected for this research had chronic wounds.

The Application of Findings to the Clinical Setting

The primary outcome of the quantitative study was the time required to heal wounds. The secondary outcomes of the research were the time required for the debridement of cells and quality of life with respect to health. The findings of the study revealed that the time to healing wound was not different among patients who were in the loose or bagged larvae group and those who were in the hydrogel larval group. The study leads towards the conclusion that larval therapy did not result in the improvements in the healing of wounds. The results of the randomized control trials revealed that the larval therapy did not enhance or improve the healing rate of bacterial wounds, necrotic leg ulcers, and other wounds. However, the therapy contributed towards a reduction in the debridement time. The findings of the study also revealed that the therapy increased the ulcer pain among patients.

The qualitative study aimed to explore the perception of patients and their experiences about larval therapy. The findings of the study have endorsed the notion that the larval therapy is acceptable to most of the patients. There are different factors that motivate patients for this therapy. The first factor that can motivate patients to accept the therapy is disillusionment with previous treatment. The second factor that has an impact on the choice of

the therapy is the chronic nature of the wound. The chronic nature of the wound has an adverse impact on the quality of life of patients. This condition results in developing a sense of hopelessness. Therefore, in order to convince patients to opt for this treatment, it is important to help them overcome this sense of hopelessness.

Conclusion

In this paper, two research studies were selected for the purpose of compare and contrast between qualitative and quantitative research methods. The studies were compared in terms of the research methods used, the use of theoretical framework, sampling methods, ethical issues, and the findings of the study. The comparison of these studies has revealed that quantitative research studies are based on the use of deductive research approach. On the other side, qualitative study is based on the inductive approach. Furthermore, quantitative study often aims to explore the relationship between two variables by determining the impact of one variable on the other. However, in qualitative research, a phenomenon is studied in general. Quantitative research often involves the use of statistical data; however, in qualitative data, case studies or interviews are used to find answers of research questions.

References

Bertrand, J. W. M., & Fransoo, J. C. (2002). Operations management research methodologies using quantitative modeling. *International Journal of Operations & Production Management*, 22(2), 241–264. doi: 10.1108/01443570210414338

- Dumville, J. C. (2009) Larval therapy for leg ulcers (VenUS II): randomized controlled trial, *BMJ*
- Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. (Z. Hogue, Ed.)*The Qualitative Report*, 8(4), 597–606. doi: 10.3367/UFNr. 0180. 201012c. 1305
- Kitching, M (2004) Patients' perceptions and experiences of larval therapy, *Journal of Wound Care*
- Onwuegbuzie, A. J., & Collins, K. M. T. (2007). A Typology of Mixed Methods Sampling Designs in Social Science Research. *The Qualitative Report*, 12(2), 281–316. doi: 10.1016/j.bbi.2003.12.001
- Sandelowski, M. (2000). Focus on Research Methods Combining Qualitative and Quantitative Sampling , Data Collection , and Analysis Techniques in Mixed-Method Studies. *Techniques*, 23(3), 246–255. Retrieved from [http://onlinelibrary.wiley.com/doi/10.1002/1098-240X\(200006\)23:3%3C246::AID-NUR9%3E3.0.CO;2-H/pdf](http://onlinelibrary.wiley.com/doi/10.1002/1098-240X(200006)23:3%3C246::AID-NUR9%3E3.0.CO;2-H/pdf)
- Smith, F (2008) Case study: maggot debridement therapy, *Wound Practice and Research journal*
- Teddlie, C., & Yu, F. (2007). Mixed Methods Sampling. *Journal of Mixed Methods Research*, 1(1), 77–100. doi: 10.1177/2345678906292430
- Yin, R. K. (2009). *Case Study Research: Design and Methods*. (L. Bickman & D. J. Rog, Eds.)*Essential guide to qualitative methods in organizational research* (Vol. 5, p. 219). Sage Publications. doi: 10.1097/FCH.0b013e31822dda9e