**Research Methodology**

## Definition of Research

Research is defined as the procedure of gathering, examining and interpreting information to comprehend a specific phenomenon. It is highly systematic in nature and involves documenting relevant facts, defining the stated objectives, managing data as well as communicating obtained findings within the conventional structures according to the present guidelines (Ellis, 2013; Parahoo, 2006). A research originates with a minimum of one question, which in turn addresses one specific phenomenon of interest. This research question, thus assists the researchers to develop individual thoughts, manage efforts and select a suitable approach to draw valid inferences for a particular phenomenon (Williams, 2007). Research is also described as an investigation or experimentation approach, which aims at discovering as well as constructing facts, explaining accepted theories or laws in the light of new facts, thereby determining their practical applications efficiently. It is best envisaged as the mechanism of reaching into dependable solutions to any identified problem through proper planning and orderly accumulation as well as the study of data (Connaway & Powell, 2010). The significance of research lays in deriving new knowledge and applying this knowledge to address any sort of practical or real problem by elaborating different concepts along with underlying theories and testing hypotheses. Another important aspect of research to any specific practice area can be identified as that it seeks to answer certain questions that have so far been left unanswered. The responses to these questions rely on human efforts that help in promoting progress and facilitating individuals to attain their set targets by resolving conflicts (Singh, 2006).

## Research Contribution to Practice Area and the Involved Ethical Issues

Nursing is considered to be the practice area for this particular research paper. While identifying the ways, through which research contributes to the practice area of nursing, it can be stated that the healthcare system of this present day context is composite in nature, wherein the needs of the patients vary at an increasing pace (University of North Carolina Wilmington, 2017). Therefore, devising appropriate solutions for the health issues faced by dissimilar population groups necessitates the healthcare providers to explore relevant concepts or theories and use the current knowledge (Schneider *et.al.,* 2013). In this context, the contribution of research to nursing practice area is determined from performing those evidence-based practices that aim at developing the healthcare delivery procedure as per the expectation level (University of North Carolina Wilmington, 2017). Even though research contributes to the nursing practice area by expanding evidence-based practices and developing clinical practices, it involves certain ethical issues that need to be addressed and resolved with the objective of deriving favourable or positive long-term consequences. These ethical issues fundamentally comprise informed consent, voluntary participation and maintenance of privacy of both the research subjects along with the personal information of the involved respondents such as the patients. Researchers must hence obtain an informed consent from the selected participants prior to their participation in any procedure of data collection so as to complete a particular research successfully. Moreover, the researchers should also seek for gaining ethical approval from the respective authorities in order to ensure that the data collection procedure is carried out in an efficient way. It is hence expected that maintaining the privacy of the participants’ personal information and the research subjects would help in maintaining reliability as well as the validity of any selected research (Nursing Times, 2014).

## Paradigms of Qualitative and Quantitative Research

Qualitative research paradigm is defined as an approach to acquire an in-depth idea about the underlying causes, motivations and opinions, which helps in developing pertinent ideas or applicable hypotheses. The fundamental methods of assembling qualitative data for a research are individual interviews, questionnaire survey and focus group discussion among others (Creswell, 2009). It can hence be observed that various significant ideas, as well as concepts, including interpretivism or idealism, inductive approach and subjectivist, are involved in a specific qualitative research. Interpretivism or idealism is characterised by observation, which helps in drawing inferences by judging the relationship existing amid information and abstract pattern. Conceptually, the inductive approach provides a clear understanding of interacting realities of the events or the phenomena in an orderly way. The subjectivist nature of a qualitative research further represents elucidating underlying theories and existing knowledge to draw the valid inferences (Antwi & Hamza, 2015). On the other hand, the paradigm of quantitative research focuses on quantifying a definite phenomenon, issue or a problem by creating as well as accessing numerical data and converting the same into working statistics (Grinnell & Unrau, 2005). Face-to-face interviews, systematic observations, paper surveys and telephone interviews are identified as certain major methods of accumulating quantitative data for any research. The different ideas and concepts that are involved in a quantitative research are positivism or realism, deductive approach and dualist or objectivist (Antwi & Hamza, 2015).

In any quantitative research, the idea of positivism or realism is viewed as an organised procedure of making empirical observations to envisage common prototypes of human activities. Researchers often use the deductive approach in a quantitative study with the intention to determine whether the set hypotheses are true or correct. The dualist or the objectivist perspective of a quantitative research emphasises measuring variables and testing hypotheses that are associated with common causal explanations (Antwi & Hamza, 2015).

## Strengths and Weaknesses of Different Research Methods within the Qualitative and Quantitative Paradigms

The strengths of different research methods within a qualitative paradigm that encompasses interpretivism or idealism and subjectivist along with inductive approaches include exploration of various ideas or opinions in a concise manner and through better interpretation of facts or data. However, complexities in operations and ineffective flow of information are certain weaknesses of these methods within the qualitative paradigm. On the other hand, determining objectivity and maintaining data precision are certain strengths of different research methods such as positivism or realism and dualist or objectivist and deductive approaches within a quantitative research. Difficulty in understanding relevant concepts and greater need to explain expressions and determine appropriate directions are identified as certain weaknesses of these particular research methods within a quantitative research (Antwi & Hamza, 2015). It is hence expected that accelerating the strengths and overcoming the identified weaknesses of the respective research methods within quantitative as well as qualitative paradigms may ensure a greater level of validity, generalizability and reliability of the overall study findings.

# Summative Assessment

## Introduction

The assessment intends to analyse and discuss a piece of qualitative or quantitative research relating to healthcare practice and delivery of care. In this assessment, an attempt will be made to provide a brief rationale justifying the choice, outlining the procedure of the search and critiquing the selected article. This assignment will hence start with discussing certain ideas and beliefs, based on which quantitative along with qualitative approaches proceed to explore various concepts or ideas and thereby draw valid inferences. To be precise, the assessment will begin with examining the strengths as well as the weaknesses, appropriate use and application of both qualitative and quantitative methods. Next, the assessment will cover identifying an interesting area to study or practice and provide justifications on the usefulness of the research. In this regard, a clear rationale for selecting the subject of this particular research will be addressed within the assessment by following certain relevant ethical principles. In addition, the assessment will cover outlining the search strategy utilised to identify the research area. A critical evaluation of the study will hence be conducted in this assessment, considering the ways, through which the sample was chosen and the specific methodology applied in the form of data collection. Furthermore, the ways through which the data was collected, handled and investigated will also be discussed in this assessment prior to looking at the conclusions and the suggestions for practice. The assessment will in turn end by drawing conclusions in the form of summarising the main points covered in the research and making a few brief reflective comments.

## A Concise Explanation of Research, Qualitative and Quantitative Approaches

Research is simply regarded as a search to obtain knowledge. Conceptually, research is defined as a methodical and a scientific search for pertinent data on a particular topic. To be precise, research is recognised as an art of logical exploration. It comprises various significant aspects such as describing as well as redefining issues, devising hypotheses or recommended solutions and gathering, arranging and assessing relevant data. Moreover, the other aspects include making presumptions, reaching into conclusions and testing the same with care to verify whether these conclusions fit into formulating the hypotheses (Kothari, 2004). According to the Department of Health and Human Services (DHHS), research is described as “a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge” (Iowa State University, 2009; p. 1). The fundamental purpose of research is to address the questions through the exploration of technical modes. Apart from this, the other objectives of research include gaining an acquaintance with a phenomenon or to explore new insights, precisely depicting the features of a specific person, situation or a group, thereby testing hypotheses of the causal relationship existing amid the variables (Kothari, 2004).

One fundamental reason for the researchers to conduct research in an orderly, as well as a technical manner, is to develop and appraise any sort of relevant theory or concept. Therefore, basic research is performed with the objectives of determining the suitability of a given theory or gaining more insights on a specific concept or idea (Bodla, n.d.). There exist two types of approaches, i.e. qualitative and quantitative in nature, based on which a particular research can be performed successfully. In general, quantitative research approach is featured by gathering information, which can be evaluated in a numerical form with the obtained results presented by utilising tables, statistics and graphs among others. This specific research approach aims at conducting tests on pre-determined hypotheses and creating generalizable consequences (Punch, 2013; Hartas, 2010). Correspondingly, qualitative research approach is viewed as a method of obtaining a greater understanding of any underlying opinion, reason and motivation. It certainly plays a critical function in addressing any identified problem and formulating new ideas or hypotheses to draw valid inferences (Luton, 2015; Frost, 2011). The qualitative research approach is exploratory in nature, which holds the objectives of recognising and investigating certain intangible aspects that embrace gender roles, individual feelings, cultural anticipations and religious along with moral implications (ACAPS, 2012).

The ideas and beliefs, based on which qualitative research approach proceeds are identified as post-positivism and constructivism. The conception of post-positivism represents that various ecological and individual distinctions that include the learning culture or the ability of the learners to pose a strong influence for underpinning qualitative research. In contrast, the notion of constructivism unveils the fact that there does not exist any single reality towards exploring a specific phenomenon or addressing an issue (Teherani *et.al.,* 2015). Seeking explanations along with predictions, forming, substantiating as well as authenticating relationships and developing generalizations that contribute to the theory are certain ideas and beliefs, through which quantitative research approach proceeds uniformly (Williams, 2007). Considering that qualitative research approach is ethnographic and interpretative in nature, its various strengths are identified for generating new ways of exploring any phenomenon and shortening as well as managing data without obliterating context and complexity (Atieno, 2009). Furthermore, the other strengths of qualitative research include examining issues in a more detailed manner, a quick revision of research structure and way, the possibility of retrieving data based on human experiences and maintenance of generalizability of the overall results obtained (Anderson, 2010).

Nevertheless, certain weaknesses in qualitative research approach can also be witnessed that has an impact on smooth completion of a particular research. One of these weaknesses can be observed as that the research quality under qualitative approach is easily impacted by personal biases of the researchers due to its heavy reliance on the individual capabilities of the beneficiaries. The other weakness is that rigour in qualitative research approach is quite hard to preserve, appraise and exhibit, which in turn, affects the generalizability of the overall study results by a certain level. Time-consuming nature of data analysis and interpretation is the other weakness of qualitative research approach (Anderson, 2010). In contrast, the strengths of quantitative research approach can be evaluated as studying the relationship persisting amid dependent and independent variables in a more detailed manner, measuring the obtained data by utilising statistics and offering a helpful illustration of trends (Block, 2006). It has further been apparent that quantitative researches do not study things within a natural setting, which qualitative approaches do to draw valid inferences. Thus, considering this factor, one of the weaknesses of quantitative research approach can be stated as that it disregards the context of a study or an experiment, thereby influencing the generalizability of the overall study findings through a negative view-point (Atieno, 2009).

Appropriate use and application of qualitative method can also be witnessed for the researches, who tend to answer questions and explore any specific phenomenon in varied settings. The researchers often use the qualitative method in their studies with the intention to acquire deeper insights into the particular subjects that have real meaning. While elucidating the appropriate use and application of the qualitative method in any study, it can be noticed that there are distinct sorts of qualitative data, which help in drawing legitimate inferences. These different kinds of qualitative data encompass images, structured interview questionnaires, press clippings, questionnaires of structured interviews and case study notes among others (Anderson, 2010). On the other hand, quantitative method is used and applied in the studies for the purpose of describing or explaining various real-world phenomena. The researchers involved in any specific study consider the quantitative method in order to perform systemic observations over the properties and to determine the associations of the premeditated objectives. The application of quantitative method generally occurs through the measurement of data by using dissimilar statistical techniques encompassing correlation and regression, t-test, ANOVA and descriptive statistics among others. Even though this particular research method has the drawback of external validity i.e. having difficulties to generalize findings to a bigger population, still it is used by the researchers to draw suitable suppositions (Gramatikov *et.al.,* 2010).

# Identification of an Interest Area Related to Study / Practice

The research paper intended to critique a qualitative study focused on “exploring the impact of foot ulceration on health-related quality of life in patients with rheumatoid arthritis.” Thus, based on this particular research idea, healthcare practice and delivery of care can be considered as the area of interest, which is related to the study or the practice of nursing. From the very beginning, nursing has been playing an imperative role in addressing healthcare issues and developing the quality of life of the patients to an extensive level (Shamian, 2014). The research to be analysed for this particular study is deemed useful from the perspective of developing the quality of life specifically for those patients, who are suffering from rheumatoid arthritis. Furthermore, the usefulness of the research selected for this specific study can also be determined from exploring the impacts of foot ulceration on the improvement of the health-associated quality of life in the rheumatoid arthritis patients.

# Clear Rationale for the Choice of Subject

The subject of nursing has been selected for this particular research paper, as it has evolved as one of the central aspects towards the improvement of healthcare facilities. The reasons behind the creation of deep interest over the specified subject are that it provides autonomous as well as collaborative care to the people of all ages and thereby ensures the greater promotion of health among others (Shamian, 2014). The article to be critiqued in this research paper deals with the healthcare issue of foot ulceration, mostly faced by the patients suffering from rheumatoid arthritis, necessitating proper conduct of nursing to develop a health-related quality of life of these patients by an extensive level. With regard to the study findings of Firth *et.al.* (2011), foot ulceration affects a number of patients suffering from RA, with overall incidence estimated at 10-13% in the UK as well as the Netherlands. Moreover, the recurrence rates of foot ulceration are identified to be high at 47% within these two regions, causing severe health complexities to the patients suffering from rheumatoid arthritis. Various risk factors that are associated with foot ulceration include peripheral neuropathy, foot distortion and increased plantar pressures among others. The social costs of the disease i.e. foot ulceration to the respective organisations, individuals, workforce communities, in general, can be duly measured in the forms of decreasing self-care ability, declining quality of life and increasing pain among others (Firth *et.al.,* 2011).

## Outline of the Search Strategy used to Identify Research

The search strategy used to identify research for this assignment and hence included both inclusion and exclusion criteria. In terms of inclusion criteria, a wide range of significant factors, encompassing data range, language, nature of the study, country of origin, access and subject criteria of the selected articles have been considered. For instance, the date range and the language of the articles chosen during the initial searching phase were included as 2010-2017 and English respectively. All these selected articles were peer-reviewed and their country origin was determined to be only of the UK. Attempts were made to access the full text of the articles by using certain relevant keywords such as foot ulceration, quality of life and rheumatoid arthritis. Similar to inclusion criteria, an exclusion criterion was also maintained while conducting the search strategy to generate valid research outcomes. For those, articles were ignored that were published prior to the year 2010 and even those with being are different from that of English.

In order to narrow down the initial research results, an endeavour was made to filter the obtained results by accessing the different databases of CINAHL Plus, Medline and EBSCOhost. The keywords including “diabetic” or “diabetes foot ulcer”, “quality of life”, “foot or feet” and “lifestyle were searched in these specific databases. With relation to the subject of “choosing adult people”, a number of hit counts for middle-aged of 45-64 years, aged from the range of 65+ years and all adults within the age-group of 19+ years amounted to 195, 174 and 141 respectively. Moreover, in this similar context, the number of hit counts for all adult stood at 88 and aged 80 and over amounted to 35. On the other hand, relating to the subject of “major heading”, a number of hit counts for diabetes mellitus stood at 2 and arthritis, rheumatoid to 1 among others. The final research study, which was qualitative in nature, is finally chosen by searching relevant articles in the database of CINAHL Plus that displayed a total of 9 results. Amongst these 9 articles, the research concerning “A qualitative study to explore the impact of foot ulceration on health-related quality of life in patients with rheumatoid arthritis” was chosen further.

# Critical Evaluation of the Selected Study

A qualitative study has been selected for this particular research paper, which emphasised investigating the influences impose by foot ulceration specifically on the health-related quality of life amid the individuals affected from rheumatoid arthritis. The critical evaluation of the selected study begins with the examination of its title i.e. “A qualitative study to explore the impact of foot ulceration on health-related quality of life in patients with rheumatoid arthritis,” which is identified to be concise and highly informative in nature. The title informs that the health-associated quality of life of the patients suffering from rheumatoid arthritis is affected by foot ulceration, generating severe kinds of health consequences amid them. Moreover, the contents presented in the title clearly showcase the relationship existing between foot ulceration and health-related quality of life of rheumatoid arthritis patients. The presence of the word ‘qualitative’ in the study title clearly indicates the research approach used to collect data, analyse the overall obtained findings, discuss relevant concepts or ideas and draw applicable assumptions (Firth *et.al.,* 2011).

The article selected to be critiqued for this particular research paper has been published in International Journal of Nursing Studies during the year 2011. Therefore, based on this ground, it can be inferred that the authors of this article namely Jill Firth, E. Andrea Nelson, Michelle Briggs and Claudia Gorecki have suitable academic qualifications, which supports the readers to acquire huge knowledge about modern healthcare practices and the procedure of delivery of care. Moreover, it became clear that the authors possess appropriate professional qualifications and experiences, as they provide a brief background about the prevalence of foot ulceration taking place within the patients suffering from rheumatoid arthritis. An e-mail address of the corresponding author i.e. Jill Firth was also provided in the selected article so that any sort of doubt amid the readers can be clarified regarding any factor related to the field of nursing through the online platform. An abstract is included at the beginning of the selected article, providing a brief background, clear objective, adequate research along with settings, methods, results and conclusion to the readers (Firth *et.al.,* 2011).

The abstract clearly identified the research problem by ascertaining that the commonness of foot ulceration amid the patient with rheumatoid arthritis stood at nearly about 10-13% in the UK with a higher recurrence rate. Since the study considered qualitative research design, it can be observed that no hypothesis testing is performed; instead, data has been collected through the conduct of in-depth interviews and analysed the same by using case and theme-based approaches. In addition, the abstract explicitly outlined the methodology adopted for the selected article by mentioning the data collection procedure i.e. in-depth interviews and framework analyses comprising case as well as theme-based approaches to recognise descriptive and explanatory variables, determining the influence of foot ulceration on the patients’ health-related quality of life. Apart from methodology, it can also be noticed that the abstract provided necessary details of the sample subjects such as sample size. For instance, as illustrated in the abstract section, a purposive sample of 23 adults with rheumatoid arthritis and open foot ulceration has been considered in the study to collect relevant data and to draw valid inferences (Firth *et.al.,* 2011).

Similar to methodology and sample subjects, the abstract has also been noticed to report major findings or results, indicating the impact of foot ulceration on the quality of life of rheumatoid arthritis patients across social, physical and mental domains. The next section followed by abstract is an introduction in the selected article, wherein the authors have evidently identified the problem and provided a rationale for the stated study. According to the authors, the problem has been observed to be all about the risk factors that give rise to foot ulceration and thereby affects health-related quality of life of the patients with rheumatoid arthritis. These risk factors are apparently observed as ill-fitting footwear, augmented plantar pressures, peripheral neuropathy, foot malformation and peripheral vascular disease. The authors in this context revealed that the recurrence rates of foot ulceration are quite high i.e. 47% that might even influence multiple issues related to foot locations. Additional risk factors that can affect the health-related quality of life of the patients undergoing rheumatoid arthritis include cutaneous vasculitis and nodules, disease-modifying drugs, reduction in self-care capacity and side effects of corticosteroids among others (Firth *et.al.,* 2011).

In this regard, the selected article revealed that it is important to preserve the health-related quality of life of the patients afflicted with rheumatoid arthritis for the purpose of overcoming several critical issues such as disability, impairment and handicap arising from the disease. This health-related quality of life is deemed a major construct due to the reason that it captures the perspectives and the interests of the patients towards exploring any phenomenon. The authors involved in the article selected for this research paper did not elucidate study limitations but these limitations were outlined in the last section of the study. Illustration of the study limitations eventually triggered the need to make certain changes in the methodology, data collection and the analysis sections so as to comply with the premeditated objectives and consequences. It has hence been evidenced that the authors of the selected critiquing article have not considered literature review throughout the research, making its operation irrelevant in nature. Since the authors do not feel interested to conduct a literature review for the study, it, therefore, failed to identify the underlying theoretical frameworks. Furthermore, it did not present a balanced evaluation of materials both supporting and challenging the positions proposed. These can be regarded as the major limitations of the study, posing an impacting on the generalizability of the overall study outcomes by an extensive level (Firth *et.al.,* 2011).

While critiquing the selected article of Firth *et.al.* (2011), it can be identified that the literature review does not clearly identify the need for the proposed research, as the authors did not consider underlying theoretical frameworks to explore any concept, idea or opinion. In addition, there is no evidence in the selected article regarding the omission of important references due to the failure of the authors to present a fair appraisal of materials that support and challenge the proposed position. Even though the study did not consider hypothesis testing, the authors still used an experimental approach to draw valid inferences, thereby maintaining a higher level of data integrity, reliability, generalizability and validity of the overall findings obtained. For instance, the authors focused on ascertaining the nocturnal pain experienced by the involved participants that disrupted their sleep in order to validate the study results. Thus, based on this ground, it can be stated that the hypothesis to be considered for the selected article is unambiguous in nature, generating the need to test relevant hypotheses in future studies (Firth *et.al.,* 2011).

Foot ulceration and health-related quality of life are the two terms that the authors clearly use in the article while defining the research problem. In this context, according to the authors, foot ulceration is viewed as a widespread problem of rheumatoid arthritis, which severely affects the health conditions of the patients at large. Moreover, the authors clearly described health-related quality of life (HRQL) as an important construct, which enables to comprehend the ways through which the expressions of disease as well as treatments hindering the daily lives of the patients. This, in turn, raises the necessity to adopt major patient management and policy decisions with the intention to develop HRQL to a considerable extent. The authors also highlighted that the different HRQL models encompass mental, communal and physical dimensions that often reflects the disability erupting from foot ulceration (Firth *et.al.,* 2011). As mentioned in the study article of Firth *et.al.* (2011), HRQL measurement is innately difficult to perform due to the composite nature of the notion itself and the multiplicity of treatment, diseases and results. It is thus clear that various HRQL perceptions are subjective in nature, which in turn supports people to mitigate adverse health consequences resulting from foot ulceration to a certain extent (Firth *et.al.,* 2011).

The authors of the selected article have discussed the methods adopted for this research in a separate section named “Patients and Methods.” It can hence be critiqued that even though the study included a section on methods, it failed to clearly state the research approach to be used. However, the authors provided a detailed idea about the criteria used to select the participants in the respective data collection procedures. For instance, the authors considered the adults suffering from rheumatoid arthritis as one of the inclusion criteria to generate relevant outcomes and thereby draw valid inferences. Moreover, the authors explicitly described the data collection procedure of in-depth interviews that were audio recorded as well as transcribed verbatim. It can critically comment that the qualitative method used in the selected article is appropriate to the research problem, as it helps in responding to the question whether HRQL in the patients with rheumatoid arthritis is affected by foot ulceration. The strengths and the weaknesses of the chosen qualitative research are not stated by the authors and however, still facilitate the study to collect data and generate valid results. The authors in the chosen article have clearly identified the subjects such as HRQL, personal hygiene and foot ulceration among others that create a need specifically for the clinicians to consider the ways to enhance the quality of life of the patients with rheumatoid arthritis (Firth *et.al.,* 2011).

The sample selection approach considered for this study is identified to be congruent with the qualitative method being used. This is owing to the reason that the sample was selected from hospital and community podiatry clinics in the region of West Yorkshire belonging to the UK between the period of May 2008 and June 2009. In addition, the approach to sample selection is clearly stated by the authors i.e. considering a purposive sample using a topic guide. The sample size i.e. 23 adults with rheumatoid arthritis is also clearly stated in the selected article by the authors, making the data collection procedure more pertinent and applicable. It can hence be critically commented that from the very beginning, the authors have provided comprehensive insights about the selected data collection procedure. For instance, in-depth interviews lasting up to 90 minutes were conducted with 23 adults having rheumatoid arthritis between May 2008 and June 2009. In this context, the validity and reliability of the data collection instrument i.e. in-depth interviews have been clearly stated, for instance, these interviews were made flexible to enable the participant to verify the order, wherein the topics have been covered. Moreover, adequate time was provided to the involved interview respondents for providing their individual responses. Also, the topic guide utilised for conducting in-depth interviews was revised with regard to the emerging data in order to explore new issues related to the successive respondents (Firth *et.al.,* 2011).

The study selected for this research paper involved human subjects such as foot ulceration, which has an impact on HRQL of those patients, who are suffering from rheumatoid arthritis. Therefore, it can be critically argued that the study acquired ethical approval particularly from the Local Research Ethics Committee and the Research and Development approval was achieved from study locations. In order to maintain reliability, generalizability and validity of the overall study findings, informed consent is sought from the interview participants that constituted 23 adults having rheumatoid arthritis. With gaining informed consent, it can be critically commented that confidentiality is assured and anonymity is guaranteed, which certainly has influenced the viability of the findings obtained and smooth completion of the research. Similar to methods and ethical considerations, the authors of the chosen article have clearly presented the results that are internally consistent in nature due to the extractions of results from the involved participants through a coordinated and a systematic way. These coordinated and systematic ways fundamentally comprised asking similar interview questions to the involved respondents, gaining informed consent from them prior to their participation in the data collection procedure and performing effective ethical practices among others (Firth *et.al.,* 2011).

A detailed explanation of the results was presented in the article by the authors by providing a summary of respondents’ features and ulcer characteristics in the form of tables that have been illustrated below.



**Table 1: Summary of participants’ characteristics**

Source: (Firth *et.al.,* 2011)



**Table 1: Summary of ulcer characteristics**

Source: (Firth *et.al.,* 2011)

Based on the above-depicted tables, it can be critically mentioned that sufficient detail is provided to the readers in enabling them to judge the level of confidence that can be placed in the findings. For instance, by displaying the characteristics of the participants involved in the in-depth interviews and the features of ulcer, the readers can easily understand the conditions, under which the healthcare issue of foot ulceration impacts HRQL of the patients with rheumatoid arthritis. Nonetheless, no such evidence can be traced to enhance the clarity of the results being presented by the graphic material. It can hence be argued that the data analysis approach considered by the authors in the selected article is deemed appropriate to the type of data collection because it figured out 3 themes as well as 7 sub-themes, relating to the additional social, physical and mental influences of foot ulceration on HRQL. Since the chosen article is completely based on qualitative research and the data analysis approach constituted thematic analysis method, it can hence be critically inferred that any statistical analysis is not considered and correctly performed to derive required results. Thus, there was an insufficient analysis to verify whether ‘significant differences’ are not attributable to variations in other relevant variables. Based on these notions, it is thus apparent that the selected qualitative study reports incomplete information about various statistical results or values such as test value, p and df (Firth *et.al.,* 2011).

The discussion presented in the chosen article is viewed to be a balanced one due to the exploration of the identified research issue by performing a framework analysis, which concentrated primarily on analysing various relevant themes and sub-themes. It can hence be argued that the discussion made by the authors in the selected article draws upon previous research by highlighting the physical impacts of foot ulceration on HRQL of the patients suffering from rheumatoid arthritis and their social consequences as well. It can, in this regard be critically commented that weaknesses of the study are acknowledged in the form of limitations, which restrained sample diversity and improper responsiveness towards treatment. However, in the article, it can be observed that some clinical implications including responsiveness to treatment by foot ulcers in rheumatoid arthritis and decline in physical activity due to pain were discussed in the chosen article. It can, therefore, be critically commented that the conclusions presented in the study are supported by the results obtained in an appropriate and a balanced way. For instance, the conclusions presented deciphered that the participants involved in the interview procedure experienced pain due to foot ulceration, which relates to the study objective i.e. added impact of foot ulceration on HRQL of rheumatoid arthritis patients. Moreover, the implications of the selected study can be identified as generating a need for the clinicians to consider ways for enhancing the quality of life of the affected patients (Firth *et.al.,* 2011).

The authors of the selected article did not present recommendations in the study but the discussion section suggested further areas for research. For instance, the study proclaimed that there is a necessity to consider an evidence-based approach to managing foot ulcers amid the patients suffering from rheumatoid arthritis so that sufficient inferences are drawn as per the expectation level. In this discussion section, it has been mentioned that further researches will be carried out in a way so that the professional contribution towards the reduction of the impacts of foot ulceration on HRQL is enhanced to the maximum possible extent. It has hence been evident that the authors did not declare any sort of conflict of interest situation, which further necessitated deriving wide-ranging consequences for the patients. Similar to this study, it is expected that further researches will be carried out by obtaining approval from the respective bodies or authorities. Thus, the study helped in identifying how weakness in the study design could be avoided in future research (Firth *et.al.,* 2011).

# Conclusion

The qualitative study considered for this particular research paper added greater understanding about the impacts imposed by foot ulceration on HRQL of the patients suffering from rheumatoid arthritis. The selected article adopted the data collection technique of in-depth interviews, which were performed with 23 participants i.e. the older adults with rheumatoid arthritis by executing a topic guide. The results derived from this particular study highlighted that the healthcare issue of foot ulceration has an impact on HRQL of the patients suffering from rheumatoid arthritis throughout the social, physical and emotional domains. Based on these results obtained, pain attributing to foot ulceration was associated with new walking disability, thereby affecting the lives of the patients to a considerable extent. As per my understanding, the impact of foot ulceration on HRQL of the patients with rheumatoid arthritis can better comprehend be from imposing new restrictions on leisure activities that reduce social participation by a significant level. I, thus, believe that increased footwear or clothing restrictions have an impact on self-esteem and body image of the people, thereby decreasing their social participation by a certain level.

Ethical considerations further play a decisive role in substantiating overall research objectives and drawing valid inferences. Similarly, in this particular study, certain ethical practices have been performed such as gaining informed consent from the involved interview participants that eventually helped in maintaining the generalizability of the overall research findings at large. As per my understanding, consideration of different ethical practices is also found to play a major role in enhancing the clarity of the results being presented, which would, in turn, be maintained as well while performing future researches in any specific subject area.

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