

Qualitative Research

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Why Do Research?

Learn

Learn new things
Seek a solution for a problem

Understand

Understand different views or opinions

Improve

Make a difference and improve people's lives
Contribute to the knowledge base

Diabetes Prevention Program (DPP) 2002

Study Question:

- Does a lifestyle intervention or treatment with metformin prevent or delay the onset of diabetes?

Study Type:

- Randomized clinical trial at 27 centers in USA

Participants:

- 3,234 adults with pre-diabetes

Methods:

- 3 Groups:
 - **Intensive lifestyle counseling** (goal 7% weight loss with 150 minutes exercise per week)
 - **Medication** (Metformin)
 - **Placebo**
- Data Collected included:
 - BMI, Gender, Ethnicity, Blood sugar value, Diabetes diagnosis

Results:

- **Intensive Lifestyle counseling - REDUCED incidence of diabetes by 58% vs Placebo**
- **Medication Intervention - REDUCED incidence of diabetes by 31% vs Placebo**

DPP Brno

- **Generalizable Results**
 - Through Lifestyle Change Type 2 Diabetes can be prevented
- Czech Republic has **increasing prevalence of pre-diabetes** in adults
- WHAT IF we **conducted the DPP in Brno**
- We Followed research protocols and collected quantitative data
- **BUT the results were DIFFERENT**
 - Compared to other groups, **Lifestyle Counseling was not more effective** at preventing diabetes for people in Brno
 - **But WHY..... How can you find out?**

What is Qualitative Research?



Used to answer the **whys** and **how's** of human behavior, **opinion**, and **experience**



involves the **researcher** collecting and analyzing **non-numerical data** (e.g., text, video, or audio) to **understand concepts, opinions, or experiences**



Analyzes information that is **difficult to obtain** through more quantitatively-oriented methods of data collection. Findings are not from standard statistical procedures or other means of quantification.

[Video Link](#)

Qualitative and Quantitative Research

Today's Plan

Introduction

Group Activity

Review Qualitative Research



Form 4 Groups



Review Journal Articles

Group Activity

Qualitative Articles: Journals and Titles



[Redacted title area]

Title on first page

Emily Hazzard BNutrDiet (Hons)^{1,2} | Karen Walton PhD² |
Anne-Therese McMahon PhD³ | Marianna Milosavljevic PhD⁴ |
Linda C Tapsell PhD²

Journal name at bottom of the page

KEYWORDS

dietitians, head and neck cancer, interdisciplinary health team, nutrition therapy, professional role, qualitative research

Journal name at bottom of the page

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RESEARCH ARTICLE

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Journal name at top of page 2

bones and the mid-twenties for most other bones.⁹ Thus, consuming adequate calcium and practicing weight-bearing

tion practices. Participants were recruited so that each focus group was composed of a specific age (11–12 or 16–17

Where to find the name of the journal and the article title

Research Questions



Guide the study and determines if qualitative or quantitative methods will be used to answer the question



1 or 2 main questions



Qualitative Study questions usually begin with WHAT or HOW



Qualitative questions tell the reader what the researchers are attempting to:

discover
describe
explore
identify

Qualitative Research Questions

How does social media **shape body image** in teenagers?

How do children and adults **interpret healthy eating** in the UK?

What are the **attitudes** of elderly people with stroke towards the **daily use of thickened liquids**?

Where to find the research question

Research Snapshot



Nutritional management of cirrhosis patients: A qualitative study exploring perceptions of patients and health workers in Ghana

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SUMMARY

Background and aims: Malnutrition is common among patients with end stage liver disease including liver cirrhosis and liver cancer. Optimal nutrition is important to reduce morbidity and mortality of these

Methods: We conducted a qualitative study using semi-structured interviews of cirrhotic patients (n = 10) and healthcare providers (n = 27) in three academic centers in Accra, Kumasi and Cape Coast (Ghana). Recruitment was by purposive sampling of patients attending specialist liver disease clinics. The recorded data were analyzed using NVivo 11 software, with generation of codes, themes and subthemes. **Results:** The major themes that emerged from the data included nutrition as part of care delivery during the hospital visit, nutritional recommendations, dietary changes and long-term practice improvement. The results showed that patients and health workers felt dietary recommendations for patients were frequently addressed, but could be significantly improved. We found that in the opinion of study participants, local guidelines are important and necessary in nutritional management of cirrhosis patients, and that participants felt it was difficult to change dietary habits following cirrhosis diagnosis. **Conclusions:** These results suggest that nutritional management of cirrhosis patients in Ghana requires improvement. Strategies to improve this could include a multi-disciplinary approach to nutritional management, development of local guidelines and continued nutritional assessment, monitoring and

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overload.” Several KT strategies may be helpful to reduce this burden by facilitating the translation of research into practice.¹⁵ Still, little is known about their effectiveness among allied health care professionals.¹⁶

In health care, lack of time, insufficient perceived skills in critical reading, conflicting results in the literature, and language of publication for non-English speakers are commonly cited barriers to KT.^{17–19} Few studies have investigated it among dietitians, and most of them are focused on the application of scientific knowledge and EBP. They showed that dietitians value research and have an overall positive opinion toward EBP. To facilitate the KT process and to narrow the know-do-gap in dietetics practice, it is essential to better understand how dietitians perceive and handle KT in their practice. Thus, we conducted a qualitative study including individual interviews and focus groups among clinical dietitians based in Switzerland to explore their perceptions and practices concerning (a) preferences and access to information’s sources, (b) KT activities, and (c) research in food and nutrition and EBP.

RESEARCH SNAPSHOT

Research Question: What are dietitians’ perceptions and practices about information sources in clinical practice, knowledge translation (KT), and evidence-based practice in Switzerland?

Key Findings: This qualitative study highlights specificities of KT in clinical dietetics practice: (1) the wide range of information sources used to keep up-to-date, (2) the importance of opinion leadership when facing unfamiliar situations, (3) the perceived ease of integrating patients’ knowledge and values during consultation, (4) the important role of activities such as knowledge dissemination and tailoring to diverse audiences (eg, patients, other health care professionals) to justify time spent reading scientific literature at work, (5) the perceived lack of evidence-based information on counseling and communication.

organized homogenous focus groups²⁴; one with dietitians working in hospitals and a second with dietitians working in private practice.

Data Collection

A thematic interview guide developed in French (available upon request from the corresponding author) was adapted from a guide developed to assess Swiss family physicians’ perceptions and attitudes toward KT practices.²⁵ The following themes, detailed in Figure 1, were addressed: (a)

inspired by a constructivist approach of theory that supposes the construction of theories by going back and forth between the data collection and analysis and the literature.²⁰ This approach is particularly suited when the research focuses on a process,²¹ such as KT in our study. We took a relativist position, considering KT perceptions as socially built and the researchers’ subjectivity as part of the study process.²² The research team members have and are known to have the objective to ease KT and to

End of Introduction Section

morbidity and mortality from cirrhosis and hepatocellular carcinoma (HCC) [14,15], in Ghana, the burden of both communicable and non-communicable diseases continues to grow, with mortality due to liver disease ranked currently as the 6th most common cause of death [6,7]. Cirrhotic patients can develop complications of the disease such as hepatic encephalopathy, hepatorenal syndrome and malnutrition, which also contribute to increased morbidity and mortality [8]. Malnutrition among cirrhotic patients is often missed as a diagnosis by health professionals, and this leads to an increase in associated complications including ascites, peripheral edema, hypoglycemia and hepatic encephalopathy [9,10].

Malnutrition arises as a result of factors such as reduction in dietary intake, increased energy expenditure and malabsorption. In the nutritional management of cirrhosis patients, recommendations include a caloric intake of at least 35 kcal/kg/day, and protein intake of 1.2–1.5 g/kg/day. For patients with ascites, the recommended intake is 2 g (80 mmol) of sodium or salt restriction to less than 5 g per day [11–13]. There is significant evidence that when nutritional management among cirrhosis patients is optimal, the incidence of complications falls, and patients’ prognosis improve [10,12,14].

In Ghana, there is a paucity of data on nutritional status and nutritional management of patients with liver cirrhosis [7]. It is important to ascertain the current state of nutritional care of cirrhotic patients by gathering information from both those who receive and those who provide care. Consequently, the knowledge, opinions and practices of health workers who serve as a source of nutrition information for patients, as well as the patients themselves, need to be examined, in order to identify

2.4. Study population

Patients diagnosed with liver cirrhosis based on clinical features, laboratory investigations and radiologic findings, who had been receiving care at one of the three teaching hospitals for at least one year, and thus had some knowledge about care received for their condition, were included in this study. Healthcare providers such as doctors (including medical officers and specialists), ward and Out-patient department (OPD) nurses, and dietitians, with at least one year’s experience of working with and caring for liver cirrhosis patients were included.

2.5. Sample size and sampling technique

A purposive sampling technique was used to select a total of forty-three (43) participants, comprising sixteen (16) cirrhotic patients and twenty-seven (27) healthcare workers across the three hospitals. The method of saturation was used to determine the sample size, with participant recruitment coming to an end when no new or additional information was obtained from the participants.

2.6. Data collection technique and procedures

Data was collected by the use of an open-ended questionnaire related to care delivery, dietary assessment and dietary changes after diagnosis. All interviews were conducted face-to-face in English or Twi (a Ghanaian language) by a single, neutral, interviewer across all of the sites. Each interview was conducted in a quiet room at a time convenient to each participant, whose privacy and comfort was ensured. All the interviews were recorded using a digital recorder. The interviews that were conducted in Twi were transcribed into English and verified by another researcher who also speaks Twi. The interview times ranged from 30 to 40 min. Respondents were asked questions on care delivery, dietary assessment and dietary changes. A field journal was used to keep track of the entire process of data collection as well as record any emerging ideas. Participants were reimbursed for the cost

Abstract

inspired by a constructivist approach of theory that supposes the construction of theories by going back and forth between the data collection and analysis and the literature.²⁰ This approach is particularly suited when the research focuses on a process,²¹ such as KT in our study. We took a relativist position, considering KT perceptions as socially built and the researchers’ subjectivity as part of the study process.²² The research team members have and are known to have the objective to ease KT and to

A close-up photograph of a typewriter's internal mechanism, showing various metal parts and typebars. A teal-colored rectangular overlay covers the left side of the image, containing the text 'Qualitative Research Questions'.

Qualitative Research Questions

How to collect qualitative data



Observations: recording what you have seen, heard, or encountered in detailed field notes.



Interviews: personally, asking people **open-ended questions** in one-on-one conversations.



Focus groups: asking **open-ended questions** and generating discussion among a group of people.



Surveys: distributing questionnaires with **open-ended questions**.

What are



OPEN ENDED QUESTIONS

WHAT

HOW

WHERE

WHEN

WHY

WHO

Interview Guide

Demographic Data

MUNI
MED



Interview Guide

Participant Data Collection

Students

1. Year in medical school
2. Please specify your Nationality
 - a. Czech/Slovak
 - b. Non Czech / Slovak
3. Gender
4. Age
5. Primary language spoken
6. In what country do you plan to practice medicine?

Faculty MD

1. Gender
2. Age
3. Please specify your Nationality
 - a. Czech/Slovak
 - b. Non Czech / Slovak
4. Primary language spoken
5. What is your medical specialty?
6. How many years on faculty at MU?
7. What Department (s)?
8. What subject(s) do you teach? What are the specific topics you cover?
9. Do you practice clinically? Where?
10. How many years have you practiced clinically?

Faculty Non-MD

1. Gender
2. Age
3. Please specify your Nationality
 - a. Czech/Slovak
 - b. Non Czech / Slovak
4. Primary language spoken
5. What is your specialty / area of expertise?
6. How many years on faculty at MU?
7. What Department(s)
8. What subject(s) do you teach? What are the specific topics you cover?
9. Do you practice clinically? Where?
10. How many years have you practiced clinically?

Open Ended Questions

Question Guide

Students

Major Question	Major Probes
1. What do you think about the role of nutrition in medical care?	What about the role of doctors in providing nutrition care? For what populations and/or Hospital Departments do you think nutrition knowledge is important? For the treatment of what diseases do you think nutrition knowledge is important?
SKIP for GRADE I, semester I 2. What do you think about nutrition education at MU medical school? Grade I, Semester 1: Where do you go for more information about nutrition?	In courses with nutrition topics, are you satisfied with the faculty member's level of nutrition knowledge? Why or why not? Tell me about any faculty members that are enthusiastic/passionate about nutrition? In what year of study and what kind of courses do you think nutrition should be incorporated? In your opinion how much time should be devoted to nutrition education? Where do you go for more information about nutrition?
SKIP for GRADE I, semester I 3. How well does MU course work prepare you to address nutrition with your patients? Grade I Semester 1: What nutrition topics would you like to learn about?	In what subjects did you learn the most about nutrition? To what extent are faculty members demonstrating how to offer nutrition counseling and nutrition education to patients? Discuss the preparation for clinical practice, is it adequate or inadequate? How do you think information about nutrition could be better incorporated into your education or clinical training? What nutrition topics would you like to learn about?
4. What information, resources or skills do you need to be equipped to provide nutrition related care for your patients?	How comfortable are you in assessing a patient's nutrition status? How comfortable are you to offer nutrition education or counselling to patients? What nutrition training do you need to be prepared to provide nutrition care to patients? What could the school do differently to ensure students are well prepared to address nutrition in patient care?
5. How do you view the role of dietitians in patient care? In medical training? In other areas?	Tell me about the services they provide? Describe your interactions with dietitians? How do you feel about having dietitians on the medical school faculty [to teach nutrition topics]? When would you refer a patient to a dietitian?
6. How do you see nutrition being incorporated into your future medical practice?	If you know, will you share what area of medicine you plan to specialize in?

Closed questions:

- Often start with “Do you...” or “Have you...”
- Are frequently answered with “yes” or “no”

Examples:

- Do you take your insulin as prescribed?
- Have you tried to quit smoking?
- Is that a daily thing for you?

Open Questions:

- Often start with “what, why, how, when”, etc.
- Require more thought and conversation

Examples:

- How do you take your insulin?
- What have you tried to quit smoking?
- How often do you do that?

Use Open-Ended Questions

Participants



WHO TO INCLUDE



HOW TO RECRUIT

How to Recruit Participants

- **Recruitment** is the process of finding, screening, and scheduling qualified candidates for the study
- **Methods to contact candidates** include:
 - sending letters, emails or telephone calls
 - hanging posters
 - In-person - visiting places where candidates may be found
 - Referrals from study participants
- **Goal** is to identify qualified participants without introducing bias through the selection process

Method of Data Collection and Participants



Stages of Data Analysis



Transcription of Interview data



De-Identification of sensitive data



Reviewing and reading data



Grouping data into categories - Coding



Identification of Themes or main ideas from the data



Methods to Validate data collection and analysis

Research
Findings

Answer the research question using:

Themes (main ideas)

Representative quotes

Conclusions

Table of Categories and Descriptions

GENERAL CATEGORIES*	SUBCATEGORIES AND/OR DESCRIPTION
Level 1: Factors perceived as most important	
Hunger/food cravings	Eating because of hunger or craving for a specific food
Appeal of food (primarily taste)	Taste/familiarity with food; appearance; smell; how food is prepared or served; temperature of food; if foods "go together"; variety
Time	Amount of time adolescent has or wants to spend on food; amount of time parents have (eg, due to work schedules)
Convenience	Fast and easy to make (eg, cereal) or get (eg, fast food); easy to take with them on the bus or in a backpack; easy to obtain (home delivery or drive-through); don't have to wash dishes or clean up
Level 2: Factors of secondary importance	
Availability	Food available and/or served in home (see "parent influence"), school (school lunch and vending machines), and region of country (in Minnesota vs places where lived previously)
Parent influence	Eating and cooking behaviors of parents; foods parents buy (or do not buy); rules surrounding eating/meals; parental concern about foods children eat; family meal patterns; overall parent-child relations; culture/religion of family
Perceived benefits	Get energy (to succeed in school or sports); influence body shape/condition (eg, to look better or succeed at sports); feel full; be healthy; keep from feeling hungry or sick because of hunger
The situation	Who they are with (eg, friends or family); what they are doing (eg, teenage party or family event); when it is (eg, time of day, season); where they are (eg, nice restaurant or fast-food place)

Table of Themes

doctors (n = 7) and dietitians (n = 3) (Table 1). Both out-patient (hepatology clinic) and ward (general internal medicine) nurses were recruited. All nurses interviewed were general nurses and did not have specialist nursing training. Doctors comprised three specialist gastroenterologists and four medical officers, working in general internal medicine. Patients with both decompensated and compensated cirrhosis, due to causes such as viral hepatitis and alcoholic liver disease were recruited. The majority were Child-Pugh class A and B, with only a few class C patients interviewed due to advanced disease and significant hepatic encephalopathy.

3.2. Nutritional management

Themes relating to perceptions and practices of nutritional management of liver cirrhosis patients that were identified included nutrition as part of care delivery, nutritional recommendations, and dietary changes and follow up practices. Some of the sub-themes included nutritional assessment and nutritional advice, and guidelines (Table 2).

Theme 1. Nutrition as part of care delivery during hospital visits

Sub-theme 1. Assessment of nutritional status

The majority of healthcare workers reported that it was often difficult to perform nutritional status assessment for cirrhosis patients during their visits due to multiple factors, which included insufficient time and logistics. Many reported that the extent of nutritional status assessment involved asking a patient whether they had anorexia (loss of appetite or interest in food) and at times what they were eating. This information was also echoed by patients as well.

"We don't have time to assess it, that is one of our weak points" – **Female doctor**

"Sometimes [it] comes down to logistics and prioritization. But it is difficult to assess them objectively in our clinic setting." – **Male doctor**

"For my diet [the doctor] has never asked me before." – **Female patient**

Table 2
Summarized themes and sub-themes – perceptions and experiences of patients and healthcare workers

delivery during hospital visit	- Referral to a dietitian
Nutritional recommendations	- Nutritional advice
	- Nutritional recommendations and source of recommendations
	- Expectations about dietary advice
Dietary changes and long-term practice improvement	- Adherence to nutritional advice
	- Expectations about improving dietary care

routine practice. Some healthcare workers perceived this as a normal occurrence for cirrhosis patients, whilst some opined that this was not the case, and that there was poor co-ordination between medical professionals especially between doctors and dietitians. Some patients had been referred to a dietitian at least once, whilst others had not since diagnosis.

"I think maybe there's just too little communication between the doctors and the dietitians, we don't engage them, we don't find out what they tell our patients." – **Male Doctor**

"Newly diagnosed, they are referred to the dietitian ... the dietitians are always on the ward" – **Female nurse**

"Yes I have seen a dietitian before" – **Male patient**

"But as in the hospital per say seeing a dietitian aspect, no." – **Female patient**

Theme 2. Nutritional recommendations

Sub-theme 1. Nutritional advice

There was a large disparity between patients and healthcare workers with regard to the content of nutritional advice given to patients. Most patients reported that a healthcare provider had given them advice on foods to eat and to avoid at some point

Theme and Representative Quotes

How are Qualitative Results Presented in Articles

Study Results



How can Qualitative Findings be used



Development of theories based on views and opinions of the group.



Write and publish reports using quotes and data to support findings



Inform plans for follow up and future research

DPP in Brno

If lifestyle change **was not effective** at preventing diabetes for people in Brno

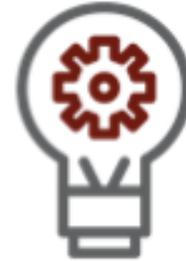
HOW can we determine **WHY**?

Qualitative & Quantitative Research Work Together

Qualitative Research



- ✓ Explore
- ✓ Go Deep
- ✓ Seek to Understand



Quantitative Research



- ✓ Quantify
- ✓ Validate
- ✓ Make Decisions



What
Questions do
you have?