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Talking Twents

A dialect directory for the care professional

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Abstract

Background

The Dutch care industry is an industry constantly faced with challenges, as the number of patients increases, so do the costs. Nonetheless, the industry is expected to provide good care to all. One component of good care is a good relationship between a patient and a care-provider.

Objective

The main objective of this study is to find whether the use of dialect, by a care-provider, affects the perceived relationship with a dialect-speaking patient, and thus whether the care industry could benefit from this, and the role of relationship duration in the perceived relationship.

Methods

To gain insight into the effects of dialect on the perceived patient/care-provider relationship, a two (fluent/disfluent) by two (long-term/short-term) online experiment has been conducted. The conditions in the online questionnaire varied in fluency (by dialect use) and relationship duration. 126 responses were analysed to uncover these effects on the perceived patient/care-provider relationship. The relationship constructs; expertise, loyalty, and patient engagement, and questionnaire items were based on literature.

Results

Results indicated that the manipulations were mostly perceived as intended and fit for the study. To test whether the use of dialect towards a dialect-speaking patient influences the perceived relationship, a Multivariate Analysis of Variance has been conducted. The MANOVA indicated a significant positive effect of fluency on all three constructs and that the relationship duration positively affects loyalty, while negatively affecting expertise. The study showed no significant moderator effect for professional care experience of the respondent. Additionally, no significant interaction effects have been indicated.

Conclusions

Based on these outcomes, care organizations are recommended to encourage the use of dialect by employees. The second recommendation is that care-professionals employ dialect and relationship duration as tools. Lastly, future research has been recommended to gain insight into the effects of dialect differences, patient and professional experiences, and different types of care.

Content

1. Introduction

The Dutch care industry is an industry constantly faced with challenges. On one hand, the men and women working in this industry are expected to provide the best care possible, yet society provides them with limited means. Not only is the industry limited in its finances, it is also severely understaffed. Even though the national government is increasing care budgets, the future is not guaranteed to become brighter. As the budget increases, so will the care expenses for society (Zorgwijzer, 2018). The aging population is one of the causes of an increase in the number of patients, and thus in costs. Another patient increase is caused by changes in the labour market. Due to technological advancements, simple jobs have evaporated, decreasing self-reliance of people with low IQ's or other mental issues, which led to more 'mentally limited' diagnoses (Woittiez, Putman, Eggink, & Ras, 2014).

These increases in costs and the number of patients challenge the industry to find cost-effective and accessible ways to improve care. Providing care is more than just providing the right treatment, it is also about the patient/care-provider relationship. A good patient/care-provider relationship offers benefits for both patient and care-provider (Chin, 2002; Djambazov, Giammanco, & Gitto, 2019; Para, 1997).

The patient/care-provider relationship, is foremost an interpersonal relationship. Meaning theories concerning interpersonal relations are most likely applicable to the patient/care-provider relationship. A theory providing insight in the forming of interpersonal relationships is the social identity theory (Tajfal & Turner, 1986), which suggests that relationships benefit from shared identity traits, traits such as a similar language, dialect, or accent. Van Bree (1983) stresses the importance of dialect; a universal language enables one to survive in a society, but dialect enables a person to be truly part of it. Additionally, sharing a dialect could result in better mutual understanding and thus in uncertainty reduction, which is, according to the uncertainty reduction theory, something all humans strive for (Berger & Calabrese, 1975). Another factor in uncertainty reduction is relationship duration, as by time, uncertainty diminishes.

Based on those theories, the relationship between a patient and care-provider might be influenced by the use of dialect and relationship duration. The objective of this study is to determine whether the use of dialect, by a care-provider, affects the relationship with a dialect-speaking patient and thus whether the care industry could benefit from this, and the role relationship duration has in this. However, there are different types of patient/care-provider relationships, for example long- and short-term relationships. Dagger, Danaher, and Gibbs (2009) found that an industrial service relationship is strongly influenced by its duration, it's possible that duration has similar effects for a care service relationship. Thus, making duration a worthwhile factor in this study. The study will be guided by the following research question:

''To what extent does congruency in dialect influence the perceived relation between a dialect speaking patient and care-provider, and what is the role of relationship duration in this?''

Answering this question will not only benefit the care industry, it will also have theoretical relevance as there is little recent literature concerning the influence of dialect use on interpersonal relationships.

As little literature as there is concerning this specific topic, there has been lots of research into interpersonal and patient/care-provider relationships. Existing literature offers basic insight and understanding into these relationships, enabling the study to focus on whether, and if so how, the patient/care-provider relationship can be influenced by the use of dialect. The descriptive nature of the study compels a quantitative approach.

More about this study's approach can be found in chapter 3, which focusses on the used methodology. The methodology section is preceded by the theoretical framework in chapter 2, the literature review that focusses on identifying variables and proposing hypotheses. Which are tested in chapter 4, the results section. These results and this study's limitations are discussed in chapter 5, after which, conclusions and recommendations are drawn in chapter 6.

2. Theoretical framework

A crucial part of the care industry is the relationship between a patient and a care-provider. Djambazov, Giammanco, and Gitto (2019) found that an improved patient/care-provider relation helps reducing uncertainty. Additionally, a strong relationship between patient and care-provider benefits treatment efficiency (Chin, 2002). Furthermore, the quality of care increases and organizational risks for providers decrease when patient/care-provider relations are good (Para, 1997).

Burnum (1984) found that a powerful aid for this relation is the use of dialect, as it helps reduce misunderstanding. Additionally, Mai and Hoffmann (2011) found that a regional dialect offers the opportunity to increase the smoothness of social interaction, such as the social interactions within a patient/care-provider relationship.

2.1 Perceived patient/care-provider relationship

Ridd, Shaw, Lewis, and Salisbury (2009) found that a patient/care-provider relationship consists of four main constructs. These constructs are trust, loyalty, knowledge, and regard. The following section will provide insight into these constructs.

2.1.1. Trust

Trust is a fundamental construct in the patient/care-provider relation. Trust is associated with higher patient satisfaction and devotion to treatment and provided care (Rolfe, Cash-Gibson, Car, Sheikh, & McKinstry, 2014). Mechanic (1998, p. 662) defines trust as the "expectation that individuals and institutions will meet their responsibilities to us". Mechanic (1998) defines five dimensions of trust within the care-industry; expectations about competence, the level of concern for the patient's wellbeing, control in decision-making, management of confidential information, and the provider's openness and communication.

A patient-centred approach, good communication, constancy in care, ethnicity, and the patient's approval of the appearances of the care provider are factors crucial for a trusting patient/care-provider relation (Croker et al., 2013). Consistency in care is a result of a long-term relationship between the patient and care-provider. Straten, Friele, and Groenewegen (2002) agree with Croker et al. (2013) on the importance of focussing on the patient, good and clear communication and add the dimensions: the expertise of the care-provider, quality of care, and quality of cooperation.

The use of dialect by a care-professional towards a dialect-speaking patient plays into the patient centred-approach and could benefit communication. Additionally, Stepanikova, Mollborn, Cook, Thom, and Kramer (2006) found that speaking the same language is of substantial importance for a patient's trust in its care-provider, as it helps communication, prevent misunderstanding, and increases the likelihood of the patient following the care-provider's advice.

2.1.2. Loyalty

The second construct defined by Ridd et al. (2009) is loyalty. Oliver (1999) defines consumer loyalty as a strict commitment to a favored product or service, despite situational changes and commercial efforts to influence buyers behaviour. This definition can be placed in the context of the care industry by establishing the patient as a consumer and care as a provided service. Loyal patients benefit both care providers and patients, as patient loyalty is proved to be positively related to profitability and the patient is often more cooperative to a provider that has earned the patient's loyalty, leading to better treatment results (Wan, Zhou, Shang, Liu, & Feng, 2017).

Wan et al. (2017) suggest that commitment and patient satisfaction are crucial elements of patient loyalty, with the notion that these constructs are influenced by other factors such as perceived value, perceived service quality, patient complaints, and each other. The influence of trust and satisfaction on loyalty is confirmed by Platonova, Kennedy, and Shewchuk (2008). Additionally, Wu (2011) claims that a care provider exceeding the patient's expectations increase willingness to return, and thus increases loyalty.

2.1.3. Knowledge

Ridd et al. (2009) classify knowledge as a defining factor in the depth of the patient/care-provider relation. This knowledge stretches further than the professional/specialist knowledge of the care professional, it also includes how familiar the patient is with the professional and likewise. The patient's familiarity with the care provider and the care provider's knowledge about the patient are crucial in a good relationship (Gabel, Lucas, & Westbury, 1993). Familiarity, in this extent, goes beyond a basic understanding, it includes knowledge of the situation, the patient, and other aspects of the context. Bor, Schers, van den Hoogen, Grol, and van den Bosch (2005) found that familiarity with the care provider leads to higher trust and satisfaction than with an unfamiliar care professional.

Additionally, having great professional knowledge is also beneficent for the relationship between patient and care provider. Carroll et al. (2018) found that when professionals have a better understanding of the situation, they are more capable of clearly communicating towards patients. The knowledge as intended by Ridd et al. (2009) can be more clearly defined as expertise, as the term knowledge is broad and can be rightfully interpreted in many different ways, causing confusion. Which is why, in this study, the construct knowlegde will be referred to as expertise.

2.1.4. Regard

The final puzzle piece in a patient/care-professional relation is regard (Ridd et al. 2009). Loh and Sivalingam (2008) define regard as the humanistic approach in the agent relationship. The humanistic approach enriches the relationship by the means of empathy, genuineness, and positivity (Loh & Sivalingam, 2008). Lings et al. (2003) signify the importance of liking, which may be an important factor in effective treatment. Liking, for patients, is about having an easy-going and relaxing relation with the care professional (Lings et al., 2003).

Another construct within regard is comfort. Comfort is important for the patient, leading to increased likelihood of discussing sensitive issues, trust in the care professional, and patient's perception that problems are solved faster (Pandhi, Bowers, & Chen, 2007). The final dimension to regard is respect. Sarvimäki, Mattsson, Eliasson, von Bültzingslöwen, and Hjortdahl (2005) found that respect is a crucial aspect of the agent relationship. Sarvimäki et al., (2005) found that respect helps a patient feel like a human being.

2.2. Fluency and relationship duration as aspects of care-giving

2.2.1. Fluency

Processing fluency, or the ease with which information is processed, highly influences personal relations. People often perceive processing information correctly or other cognitive achievements, as gratifying, which is why high fluency often leads to positive judgement, while high disfluency is associated with negativity (Schwarz & Clore, 2007). Processing fluency has proven to be a great indication of judgement, whereas the positive effects of high fluency affect this judgement positively (Dragojevic & Giles, 2016). Meaning that when it's easy for people to process the information about, or provided by, the other, it benefits the relation. It's expectant that when two entities speak the same language or dialect, the fluency is high, whereas it is low when the parties speak different languages or dialects. Which makes processing fluency a valuable variable in this study, as it is expected that high fluency, as a result from speaking a mutual dialect, will benefit the patient/care-provider relationship. In this study specifically, fluency is defined as the dialectical congruency between the patient and care-provider and thus refers to the level of understanding between the two parties.

A theory supporting a possible positive effect of higher fluency due to dialect use is the social identity theory, which suggests that people classify themselves into groups based upon characteristics shared with others (Tajfel & Turner, 1986). As these in-groups are created, so are out-groups. The in-group consists of those who share a trait, and those in the out-group are the outsiders that do not belong in the group. The social identity theory is interrelated to three main constructs; self-categorization, self-identification, and social comparison (David, 2015).

Language is one of the categories someone can identify with. For example, by categorizing

based on a mutual accent or dialect. Based on this self-giving category one might identify himself with other dialect speakers and form a group of peers. These groups tend to compare the group, often favourably, with other groups (David, 2015). One of the effects of belongingness to a group is group cohesion (Ashforth & Mael, 1989), leading the group members to have stronger bonds with each other than with outsiders.

It is likely that this bond might be of influence on the relation between a patient and a care-provider. A Twents (dialect originating from the region Twente in the Netherlands) speaking patient might categorise himself in the 'Twents speaker', having a care-provider fitting in that same group might benefit the relationship. Additionally, it is likely that the in-group has better mutual understanding of each other and thus higher fluency than the out-group with a Twents speaking patient and a Dutch speaking care-provider. Because of all this, it can be expected that the use of dialect, and thus high fluency, leads to higher perceived scores for the different constructs of the patient/care-provider relationship.

H1A: High fluency will lead to better perceived trust regarding the patient/care-provider relation, as compared to lesser fluency

H1B: High fluency will lead to better perceived loyalty regarding the patient/care-provider relation, as compared to lesser fluency

H1C: High fluency will lead to better perceived expertise regarding the patient/care-provider relation, as compared to lesser fluency

H1D: High fluency will lead to better perceived regard regarding the patient/care-provider relation, as compared to lesser fluency

2.2.2. Relationship duration

In the care industry there are both long- and short-term relations. For example, the long-term relationship between a care-provider and a senior in an elderly home and the short-term relation between a surgeon and a patient. Ridd, Shaw, Lewis, and Salisbury (2009) found that longitudinal care is a useful tool to establish and cultivate a patient/care-provider relationship. The importance of continuity in care is confirmed by Pandhi, Bowers, and Chen (2007). However, longitudinal care does not guarantee any depth in the relationship (Ridd et al., 2009).

A possible effect of duration on the patient/care-provider relationship can be explained by Berger and Calabrese's uncertainty reduction theory (URT) (1975), which assumes that people constantly collect information about another party to diminish the unpleasant state of uncertainty. This data collection starts with an entry phase where information comes from superficial observations. A stage succeeded by the personal stage where communication becomes more informal and the

shared information more personal. The final stage is the exit stage, where the parties discuss the future of the relationship. Moving through stages by time, thus indicating that uncertainty decreases by time as well. As URT suggests that uncertainty reduction, it also suggests that relationship duration influences the patient/care-provider relationship. This makes it likely that the constructs in a long-term care relationships are better perceived than those in a short-term patient/care-provider relationship.

H2A: Long-term care will lead to better perceived trust regarding the patient/care-provider relation, as compared to short-term care

H2B: Long-term care will lead to better perceived loyalty regarding the patient/care-provider relation, as compared to short-term care

H2C: Long-term care will lead to better perceived expertise regarding the patient/care-provider relation, as compared to short-term care

H2D: Long-term care will lead to better perceived regard regarding the patient/care-provider relation, as compared to short-term care

2.2.3. Interaction

In a long-term relationship between patient and care-provider, there is time to get to know each other and move to the second stage of an interpersonal relation, where superficial cues are no longer needed to reduce uncertainty (Berger & Calabrese, 1975). This could reduce the effect of high fluency on the patient/care-provider relation. Additionally, the uncertainty reduction theory is applicable to both relationship duration and fluency. Douglas (1990) suggests that language can be an important tool in uncertainty reduction. Furthermore, a long-term relationship might lead to high fluency without interference, as the parties get used to each other, and each other's vocabulary. These interactions suggest that the effect of fluency, and thus the effect of dialect congruency, is influenced by relationship duration.

H3A: The effect of fluency on the perceived trust regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.

H3B: The effect of fluency on the perceived loyalty regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.

H3C: The effect of fluency on the perceived expertise regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.

H3D: The effect of fluency on the perceived regard regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.

2.3. Involvement in the care-industry

In this study involvement due to proffesional care experience will be taken in account. When people are involved with something, that involvement influences needs, interest, and values (Zaichkowsky, 2005). A possible cause of involvement into the patient/care-provider relationship, is being a care-provider and thus working in the care industry. Due to the professional involvement, the study results could be different for care-professionals and people that are not employed in the care industry.

However, literature lacks an indication on the direction of this moderating effect. Because of this, hypotheses drawn upon expectations cannot be formulated. Which is why research questions 1 and 2 are introduced to test the moderator.

RQ1: Is the effect of fluency on the perceived patient/care-provider relationship moderated by the respondent's professional care experience?

RQ2: Is the effect of relationship duration on the perceived patient/care-provider relationship moderated by the respondent's professional care experience?

2.4. Conceptual research model

Figure 2.1 presents the conceptual research model based upon the literature study. The independent variables are fluency and the period of time in the care relationship. The dependent variable patient/care-provider consist of trust, loyalty, expertise, and regard. Involvement due profession has been taken in account as the moderator. Additionally, table 2.1 shows a summary of the hypotheses.

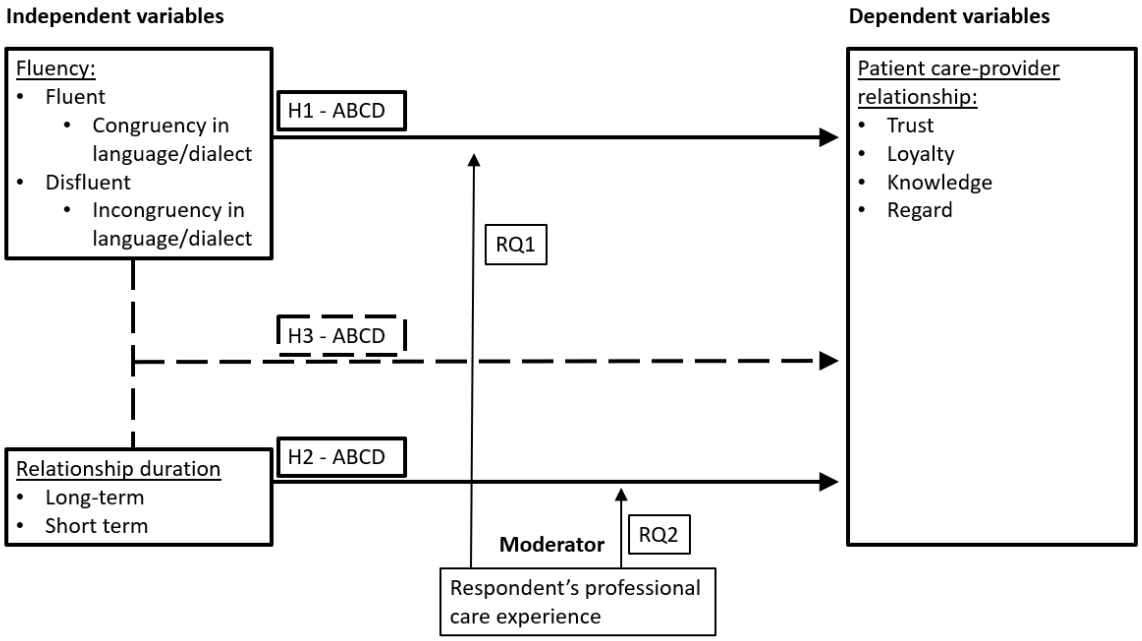

Figure 2.1
Conceptual research model

Table 2.1
Summery of hypotheses

Number	Hypothesis
H1A	High fluency will lead to better perceived trust regarding the patient/care-provider relation, as compared to lesser fluency.
H1B	High fluency will lead to better perceived loyalty regarding the patient/care-provider relation, as compared to lesser fluency.
H1C	High fluency will lead to better perceived expertise regarding the patient/care-provider relation, as compared to lesser fluency.
H1D	High fluency will lead to better perceived regard regarding the patient/care-provider relation, as compared to lesser fluency.
H2A	Long-term care will lead to better perceived trust regarding the patient/care-provider relation, as compared to short-term care.
H2B	Long-term care will lead to better perceived loyalty regarding the patient/care-provider relation, as compared to short-term care.
H2C	Long-term care will lead to better perceived expertise regarding the patient/care-provider relation, as compared to short-term care.
H2D	Long-term care will lead to better perceived regard regarding the patient/care-provider relation, as compared to short-term care.
H3A	The effect of fluency on the perceived trust regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.
H3B	The effect of fluency on the perceived loyalty regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.
H3C	The effect of fluency on the perceived expertise regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.
H3D	The effect of fluency on the perceived regard regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.
RQ1	Is the effect of fluency on the perceived patient/care-provider relationship moderated by the respondent's professional care experience?
RQ2	Is the effect of relationship duration on the perceived patient/care-provider relationship moderated by the respondent's professional care experience?

3. Methodology

This chapter describes the methodology used to test the hypotheses defined in the theoretical framework. The chapter includes study design, pre-test criterion validity, the measurements of the variables, data collection procedure and a sample description.

3.1 Study design

In this study, an online experiment with a questionnaire has been conducted. The experiment was intended to be a three (fluency) by two (relationship duration) design (table 3.1). The conditions are presented in Appendix A. The questionnaire began with certain demographic questions including questions concerning the moderator. These questions were followed by a single situation and the questions to rate the relationship between patient and care-provider based upon the four constructs of this relation. To prevent biases, the different conditions were randomly assigned to the participants and the patient/care-provider relationship related questions were presented in random order.

Table 3.1
Intended study design

	Fluent	*Disfluent*	*Control*
Short-term	Twents-Twents Interaction indicating short-term relation	Dutch-Twents Interaction indicating short-term relation	Dutch-Dutch Interaction indicating short-term relation
Long-term	Twents-Twents Interaction indicating long-term relation	Dutch-Twents Interaction indicating long-term relation	Dutch-Dutch Interaction indicating long-term relation

3.2. Design of stimuli conditions

Based on the aforementioned study design, six different conditions have been designed. The Dutch-Dutch situations were designed foremost. The relationship duration manipulation has been implemented by differentiating two main situations, one short-term and one long-term. Based on the condition introduction and the interaction between patient and care-provider durational differences became obvious to the reader. To ensure these situations were realistic, two care-providers have been employed to judge the situations on realism. To ensure the correct use of the Twents dialect, a native speaker translated the Dutch-Dutch situations into Twents-Twents and Dutch-Twents. Table 3.2 shows a segment of the situations for each of the dialect conditions

Table 3.2
Situation segments

Dutch-Dutch	"Johan, dat is vervelend. Kan ik iets voor u doen?" vraagt Marieke begripvol. Johan; "Ik denk het niet zuster. Dat is nou een keer het leven. Daar doe je niks an."
Dutch-Twents	"Johan, dat is vervelend. Kan ik iets voor u doen?" vraagt Marieke begripvol. Johan; "Ik deank het nich wicht. Dat is noe een keer 't leam'm, doar doo'j niks an."
Twents-Twents	"Johan, ik begriep dat oe dat zeer döt. Kan 'k wat veur oe doon?" vraagt Marieke begripvol. Johan; "Ik deank het nich wicht. Dat is noe een keer 't leam'm, doar doo'j niks an."

Selected from the long-term situation

3.2.1. Pre-test

To ensure that the situation presented at the beginning of the questionnaire was interpreted as intended, with fluency and relationship duration manipulation, a small sample, 10 respondents, pre-test was performed. This small sample effects the validity of the pre-test, however, due to circumstances and time limitations the sample is sufficient for a general analysis. Every participant was asked to read all 6 situations and answer two questions. 'Rate how well the parties understand each other', measuring fluency, and whether the relationship is long- or short-term. The situations were presented to the participants in a random order to prevent question order bias.

Fluency

Fluency was tested with the following statement: "how well do *patient* and *care-provider* understand each other?". The respondents answered on a three-point Likert scale ranging from 'with effort (1) to effortless (3). In the analysis of these situations, 'with effort' equals one, 'neutral' two, and 'effortless' three. An average score significantly different and lower than two verifies low fluency, and an average score significantly different and higher than two verifies high fluency. Table 3.3 shows the average scores for each of the six situations.

Table 3.3

Pre-test fluency; one-Sample Statistics

	M	*SD*
D.T. short term fluency	1.40	0.70
D.T. long term fluency	1.20	0.63
D.T. average	1.30	0.67
T.T. short term fluency	3.00	0.00
T.T. long term fluency	3.00	0.00
T.T. average	3.00	0.00
D.D. short term fluency	2.40	0.52
D.D. long term fluency	2.20	0.42
D.D. average	2.30	0.47

Measured on a 3-point Likert scale (1=Disfluent | 3=Fluent)

D.T.= Dutch-Twents, D.D.= Dutch-Dutch, T.T.= Twents-Twents

Fluency tests

Due to the full agreement among the participants when it came down to the Twents-Twents combination (M=3.00, SD=0.00), a T-test cannot be computed for this combination, nonetheless, the 100% agreed upon score of three verifies that these situations are perceived as highly fluent. The test value in the one sample T-tests concerning the Dutch-Twents and Dutch-Dutch situations is two, because a significant difference from two verifies that the fluency is significantly different than "neutral" and thus whether the situations are perceived as highly fluent or highly disfluent. Dutch-Twents shows a significant difference for both short-term, (M= 1.40, SD=0.70); t(9) = -2.14, p = 0.02, and long-term (M=1.20, SD=0.63); t(9) = -4, p = 0.00, from the test value.

The Dutch-Dutch short-term condition has a fluency score that significantly differs from the test value (M=2.40, SD=0.52); t(9) = 2.45, p = 0.04. However, the fluency score of the Dutch-Dutch long-term situation (M=2.20, SD=0.42); t(9) = 1.50, p = 0.17, is not significantly different from the test value. These results indicate that Dutch-Dutch in the long-term situation disregard the validity of the fluency scores in this situation. A possible explanation for this could be that the situation, wherein an elderly person receives care, and has never lived outside of Twente speaks Dutch instead of Twents as his primary language, might be seen as unbelievable by the respondents. To prevent this outcome from influencing the study, the Dutch-Dutch situations have been scrapped from the study.

Fluency difference due to situational differences

Finally, to ensure that there is no significant difference between the measurement of fluency in the long-term and short-term situations a paired sample T-test has been conducted. There were no significant fluency differences between the short-term Dutch-Twents (M=1.40, SD=0.70) and long-term Dutch-Twents situation (M=1.20, SD=0.63); t(9)=-1.50, p = 0.17.

The Twents-Twents combination, have in both cases a 100% agreement about high fluency (M=3.00, SD=0.00). Because both situations are rated exactly the same, the paired T was not computable, however as the mean scores of the situations are equals there is no significant difference between these two situations.

Non-parametric confirmation

Because of the small study sample, non-parametric tests have been conducted to confirm the aforementioned results. To ensure significant differences among the Dutch-Twents, Twents-Twents, and Dutch-Dutch situations a Kruskal-Wallis H test has been performed. The test showed significant different fluency scores among the different dialect situations, $\chi 2(2) = 21.71.$, p = 0.00, with a mean rank fluency score of 1.30 for Dutch-Twents (SD=0.67), 3.00 for Twents-Twents (SD=0.00), and 2.30 for Dutch-Dutch (SD=0.47).

To ensure different fluency scores are not related to the relationship duration, two additional Kruskal-Wallis H tests have been performed, one for the Twents-Dutch conditions, and one for the Dutch-Dutch conditions. The Kruskal-Wallis H test, concerning the Twents-Dutch condition shows no significant difference between short-term (M=1.40, SD=0.70) and long-term conditions (M=1.20, SD=0.63), $\chi 2(1) = 19.00.$, p = 0.00, thus validating the use of these situation to manipulate fluency. The Kruskal-Wallis H test, concerning the Dutch-Dutch condition shows significant difference between short-term (M=2.40, SD=0.52) and long-term conditions (M=2.20, SD=0.42), $\chi 2(1) = .95$, p = 0.33, thus confirming the dismissal of the Dutch-Dutch situations.

Relationship duration

The time period of the relation was tested by the multiple-choice question: “Is the relation between *patient* and *care-provider* long- or short-term?” with the “long term” and “short term” as answer possibilities. Among the participants, there was a 100% agreement that the relationship duration was perceived as intended. This outcome confirms the possibility to test the effect of the relationship duration in the patient/care-provider relation with the situations. The full agreement also means that the fluency differences did not influence the respondents' views on whether the situations are long or short-term.

3.3. Measures

To measure the dependent variables introduced in the theoretical framework, pre-existing scales have been selected and altered for this study to build upon existing test-retest validity. Only four items have been included per variable to ensure the questionnaire was kept brief, one of the requirements for an optimal questionnaire (Slattery et al., 2011). Additionally, to prevent possible confusion among respondents, all statements were measured on the same five-point Likert scale, ranking from strongly disagree to strongly agree, as suggested by literature. (Anderson & Dedrink, 1990; Morgan & Hunt, 1994; Ridd, Lewis, Peter, & Salisbury, 2011). All the statements, including adjustments and Dutch translations, are attached in Appendix B.

Measuring trust

To measure trust, Anderson and Dedrick (1990) developed a highly reliable eleven item scale. An exemplary statement for measuring trust was: "Patient trusts care-provider's judgment about care"

Measuring loyalty

To measure patient loyalty, Platonova, Kennedy, and Shewchuk (2008) suggest adjusting the commitment-trust scale developed by Morgan and Hunt (1994), due to its high validity. One of the statements measuring loyalty was: "The relationship with the patient is something the care-provider is committed to."

Measuring expertise

To measure the perceived expertise of a care-professional Lang, Stengård, and Wynne (2016) developed a 27-item scale. One of the selected statements is: *"Care-provider has knowledge of health promotion methods and tools."*

Measuring regard

To measure regard Ridd et al., (2011) suggest an eight-item instrument which "showed good test-retest reliability" (p. 542). A statement measuring regard was: *''Care-provider accepts the patient the way he is.''*

Measuring the moderator

To measure whether the respondent's professional care experience has a moderating effect on the perceived patient/care-provider relationship two extra questions have been included. Firstly, the multiple choice (Yes/No) question; "Do you have professional experience in the care industry?" The second moderator question was a question to be rated at a seven-point Likert scale "How experienced would you rate yourself in providing care to others". The answer possibilities went from not at all (1), to very (7).

3.4. Validity and reliability of measures

Kaiser-Meyer-Olkin test and Bartlett's test have been performed after the data analysis to gain insight into the constructs of the patient/care-provider relationship. The results of these tests are presented in table 3.4 and suggest performing a factor analysis to ensure the data from the questionnaire is correctly interpreted.

Table 3.4
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.84
Bartlett's Test of Sphericity	Approx. Chi-Square	1089.18
	df	190
	Sig.	.000

The principle component analysis is used, as the aim of this factor analysis is to find initial factor solutions. This method is combined with the Varimax rotation method and the exclusion of variables smaller than 0.5. These results are presented in table 3.5.

Table 3.5
Factor analysis

	Factor				
Statement	**1**	**2**	**3**	**4**	**5**
re - De zorgverlener accepteert de patient zoals hij is	.86				
re - De zorgverlener neemt de patient serieus	.77				
tr - De zorgverlener doet wat hij/zij moet doen om de patient de juiste zorg te verlenen	.65				
tr - De zorgverlener begrijpt de behoeftes van de patient en zet deze op de eerste plaats.	.55				
re - De zorgverlener geeft oprecht om de patient	.50				
Flu1 - onderling begrip		.85			
Flu2 - zelfde taal		.84			
ex - De zorgverlener kent verschillende zorgmethoden en hulpmethodes			.81		
tr - De zorgverlener is een expert in het oplossen van de zorg-gerelateerde problemen van de patient			.73		
ex - De zorgverlener kent de belangrijkste problemen in de zorg			.65		
ex - De zorgverlener herkent de tekenen en symptomen van problemen			.60		
lo - De relatie met de zorgverlener is iets wat de patient van plan is om voor onbepaalde tijd te behouden.				.91	
lo - De relatie met de patient is iets wat de zorgverlener van plan is om voor onbepaalde tijd te behouden.				.91	
Fam. dialect 1 -> Environment					.89
Fam. dialect 2 -> Personal use					.80
Cronbach's Alpha	.83	.81	.78	.91	.68
Explained variance	37.12	11.2	7.60	6.48	5.52
Eigenvalue	7.42	2.26	1.52	1.29	1.10

Re: intended to measure Regard
Tr: intended to measure Trust
Ex: intended to measure Expertise
Lo: intended to measure Loyalty
Flu: Intended to measure Fluency*
Fam. dialect: Intended to measure participants familiarity with dialect*

The results of the factor analysis, table 3.5, show not all statements align with the intended construct/factor. For example, the original trust statement 'The care-provider is an expert in solving the patient's care-related problems' is befitting for the construct expertise. Additionally, the results of the factor analysis suggest trust and regard as one single factor instead of two different factors. A closer look at the literature explaining the constructs and the statements intended to measure these confirm the intertwinement of the constructs (Straten, Friele, & Groenewegen, 2002; Pandhi, Bowers, & Chen, 2007; Rolfe et al., 2014). Because of this, the statements placed in factor 1 form the new construct; 'Patient engagement', a combination of trust and regard. In reshaping the constructs three statements have been scrapped for not meeting the 0.5 criterion. Furthermore, two statements have

been scrapped to increase a factor's reliability. These adjustments lead to satisfactory Cronbach's alpha and eigenvalues. A critical note to these renewed constructs is the high variance related to the factor 'Patient engagement'.

3.5. Participants

3.5.1. Sampling strategy

Participants have been sampled by a multitude of strategies. The main sampling strategy was convenience sampling, and thus selecting by ease of selection. The online nature of the questionnaire enabled online distribution, by channels such as social media and email.

To gain insight into the moderator, the respondent's professional care experience. Care-professionals were required to be among the sample. To ensure this representation, care-professionals were stimulated to share the questionnaire among colleagues and other professional acquaintances, thus enabling snowball sampling. All responses have been collected in the 10-day period from April 30th to May 9th 2019.

3.5.2. The tested demographics

The demographics considered in this study were: age, gender, education level, familiarity with dialect and type of community (big city, small town, village, townships, etc.). Age because young people might experience dialect differently than older people. Gender because men and women might react differently to the situations, as with education level. The type of community the respondent is part of is of importance because, in the cities, the use of dialect is less common than in the townships. Additionally, familiarity with dialect might influence perceived fluency or other results.

3.5.3. Distribution of participant characteristics

A total of 164 responses have been recorded. However, not all respondents completed the entire questionnaire. After filling out 65% of the questionnaire, a respondent provided data on the moderator, demographics, and 75% of the questions judging the relationship, making the data valuable for the study. Less progressed responses have been taken out. After scrapping these responses, 126 responses remained.

The distribution of participants and average demographics per condition are visualised in table 3.6. Education level, familiarity with dialect, type of living environment were measured on Likert scales. The scaling of these questions enabled the use of the mean of these variables as an indication of these outcomes.

Table 3.6
Demographics per condition

		Short term	Long term
Twents-Twents	N:	30	30
	Age (M/SD):	40.97 / 14.89	38.61 / 17.04
	Gender (M/F):	37% / 63%	30% / 70%
	Living environment[a] (M/SD):	2.17 / 0.91	2.13 / 0.94
	Education level[b] (M/SD):	3.90 / 0.92	3.57 / 1.17
	Familiarity dialect[c] (M/SD):	3.00 / 0.96	2.73 / 1.03
Dutch-Twents	N:	36	30
	Age (M/SD):	32.44 / 13.17	39.47 / 14.85
	Gender (M/F):	31% / 69%	27% / 73%
	Living environment[a] (M/SD):	1.94 / 0.71	2.04 / 0.83
	Education level[b] (M/SD):	3.86 / 1.07	3.76 / 1.01
	Familiarity dialect[c] (M/SD):	2.76 / 1.04	2.85 / 0.96

A: Living environment: measured on a 4-point scale (1=big | 4=small)
B: Education level: measured on a 5-point scale, (1=low educational level | 5=high educational level)
C: Familiarity with dialect: average two 5-point Likert scale (1=not familiar | 5=highly familiar

3.6. Revised research model

Because of the aforementioned changes in methodology, the research model as presented in chapter 2.5 is no longer consistent with the study. Figure 3.1 shows a revised version of this model. The six hypotheses concerning regard and trust are merged into three (H1A, H2A, H3A), the other hypotheses retain the originally assigned label. The revised hypotheses are presented in table 3.7.

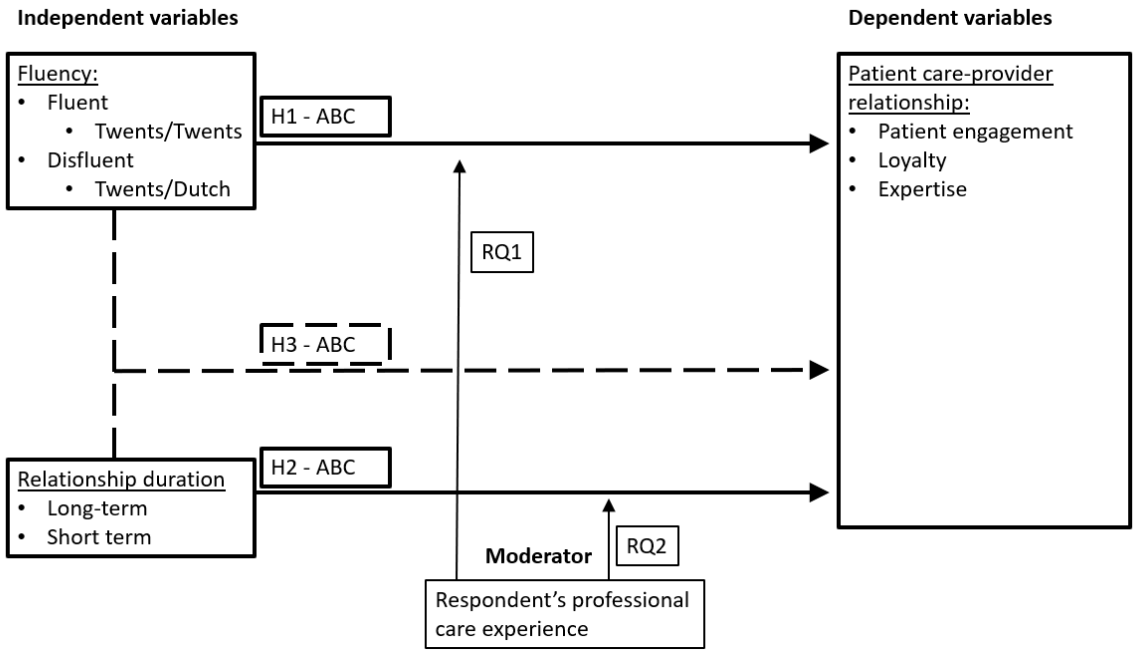

Figure 3.1
Revised research model

Table 3.7
Revised hypotheses

Number	Hypothesis
H1A	High fluency will lead to better perceived patient engagement regarding the patient/care-provider relation, as compared to lesser fluency.
H1B	High fluency will lead to better perceived loyalty regarding the patient/care-provider relation, as compared to lesser fluency.
H1C	High fluency will lead to better perceived expertise regarding the patient/care-provider relation, as compared to lesser fluency.
H2A	Long-term care will lead to better perceived patient engagement regarding the patient/care-provider relation, as compared to short-term care.
H2B	Long-term care will lead to better perceived loyalty regarding the patient/care-provider relation, as compared to short-term care.
H2C	Long-term care will lead to better perceived expertise regarding the patient/care-provider relation, as compared to short-term care.
H3A	The effect of fluency on the perceived patient engagement regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.
H3B	The effect of fluency on the perceived loyalty regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.
H3C	The effect of fluency on the perceived expertise regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.
RQ1	Is the effect of fluency on the perceived patient/care-provider relationship moderated by the respondent's professional care experience?
RQ2	Is the effect of relationship duration on the perceived patient/care-provider relationship moderated by the respondent's professional care experience?

4. Results

4.1. Study validity

4.1.1. Manipulation checks

The questionnaire ended on manipulation checks. To ensure the conditions were interpreted as intended, two fluency questions and one relationship duration question were included as final questions. All three questions were measured on a 7-point Likert scale. On this scale, the mid-point of the scale is four, meaning situations with scores significantly different from four are perceived as either high or low, or, long or short.

Fluency check

To test the perceived fluency differences in the situations three T-test have been conducted. One independent sample T-test to ensure the fluency in the conditions is perceived significantly different, and two one-sample T-tests to test whether the conditions represent high fluency and high disfluency. The average perceived fluency scores (measured on two 7-point Likert scales, 1=very disfluent | 7=very fluent) are presented in table 4.1. The independent T-test showed significant different fluency scores for the Dutch-Twents (M=4.03, SD=1.49) and Twents-Twents (M=6.28, SD=0.78) conditions; t(95.58) = -10.49, p = 0,00.

The one sample T-test confirmed that the Twents-Twents situation with a mean of 6.28 was significantly higher than 4, the mid-point of the scale; t(57) = 22.09, p = 0.00. The one sample T-test focussed on the Dutch-Twents condition (M=4,03) showed that this condition was not significantly different from the mid-point of the scale; t(62) = 0.16, p = 0,87. These results indicate that Twents-Twents is perceived as highly fluent, however, there is no significant evidence indicating Dutch-Twents is highly disfluent. Nonetheless, the Twents-Twents is significantly more fluent than Dutch-Twents, confirming the manipulation held up to some extent.

Table 4.1
Fluency perception

	M	*SD*
Twents-Twents	6.28	0.78
Twents Dutch	4.03	1.49

Average perceived fluency; two questions; measured on a 7-point Likert scale (1=very disfluent | 7=very fluent)

Relationship duration

To test the perceived relationship duration differences in the conditions another three T-tests have been conducted. Table 4.2 shows the mean relationship duration scores and the corresponding standard deviations. The independent sample T-test shows a significant difference in relationship duration scores between the short-term (M=3.17, SD=1.35) and the long-term (M=4.56, SD=1.41) relationship; t(119)= 5.52, p = 0.00. Additionally, both one sample T-tests show a significant difference from 4, ensuring short-term was indeed perceived as short-term; t(63)= -4.90, p = 0.00, and long-term as long-term; t(56)= -3,00, p = 0.00.

Table 4.2
Relationship duration One-Sample Statistics

	M	*SD*
Short-term	3.17	1.35
Long-term	4.56	1.41

Measured on a 7-point Likert scale (1=very short | 7=very long)

The moderator (professional care experience)

The moderator was measured by two questions. The first question; "do you have professional experience in care?" was a yes (N=59) /no (N=67) question. The second question; "How experienced with care are you?" was measured on a seven-point Likert scale. The results of these questions are summarized in table 4.3. To test whether professional experience in care corresponded with experience level an independent T-test was conducted. The independent T-test showed a significant difference between the experience score for those who confirmed professional care experience (M=5.58, SD=0.96) and those who refuted professional experience (M=2.72, SD=1,43); t(116.17)=14.55, p = 0.00. These results confirm that the first question is a correct indication of whether or not a respondent has professional care experience, enabling the yes/no question as determent for the moderator effect.

Table 4.3
Professional care experience; one-Sample statistics

	N	*M*	*SD*
Professional experience: yes	59	5.58	1.35
Professional experience: no	67	4.56	1.41

Measured on a 7-point Likert scale (1= no experience at all | 7= a lot experience)

4.1.2. Assumption testing

To determine whether parametric testing is analysis option, certain assumptions must be met. This section focusses on testing the assumption of normality, whether data is normally distributed and the assumption of homogeneity, whether all conditions have the same variance.

Normality

To test this normality for the three relationship constructs; patient engagement, expertise, and loyalty, a Shapiro-Wilks test has been conducted, table 4.4.

Table 4.4
Test of normality

		Shapiro-Wilk		
	Situation	*Statistic*	*df*	*Sig.*
Patient engagement	Short term Twents Dutch	.97	36	.16
	Short term Twents Twents	.92	30	.02
	Long term Twents Twents	.82	30	.00
	Long term Twents Dutch	.97	30	.48
Expertise	Short term Twents Dutch	.90	36	.00
	Short term Twents Twents	.92	30	.03
	Long term Twents Twents	.92	30	.02
	Long term Twents Dutch	.96	30	.30
Loyalty	Short term Twents Dutch	.94	36	.06
	Short term Twents Twents	.93	30	.05
	Long term Twents Twents	.83	30	.00
	Long term Twents Dutch	.95	30	.15

The results in table 4.4 indicate that the assumption of normality cannot be met, implying that the data cannot be analysed by a parametric method. A possible explanation for the lack of normality could be because of outliers. Outliers have to be approached cautiously as these values might represent valuable data, while at the same time greatly affect the results (Xiaohui, Gongxian, & Wu, 2002). A way to deal with these outliers and ensuring a normal distribution of data is by data transformation.

Conover and Iman (1981) suggest rank transformation, where all observations are ranked from smallest, 1, to largest, and ties are solved by assigning the mean. Iman (1974) praises the ‘‘robustness’’ (p.233) this approach offers. Another advantage is that the power lost by transformation is little to none (Iman,1974). This rank transformation has been applied to the scores of the constructs: patient engagement, expertise, and loyalty.

Homogeneity

To test the homogeneity assumptions the box's test of equality of covariance matrices, table 4.5, and Levene's test of equality of error variances, table 4.6, have been employed. These tests have been conducted after the rank transformation enabling the assumption of normality. As the P-values in both test is above 0.05, the assumption of homogeneity is met, thus enabling parametric testing.

Table 4.5
Box's Test of Equality of Covariance Matrices[a]

Box's M	39.15
F	0.85
Sig.	.74

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

Table 4.6
Levene's Test of Equality of Error Variances[a]

Construct	*F*	*Sig.*
Patient engagement	1.45	.19
Expertise	0.97	.46
Loyalty	0.68	.69

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

4.2. Descriptive statistics

Table 4.7 displays the means and standard deviation scores of each of these new, ranked constructs for the four situations (N=126).

Table 4.7
Descriptive statistics per condition

		Short term		Long term		Total	
		M	*SD*	*M*	*SD*	*M*	*SD*
Twents Twents	Patient engagement	3.27	1.24	2.77	1.17	3.02	1.22
	Expertise	3.13	1.49	2.68	1.33	2.90	1.42
	Loyalty	2.14	1.35	3.73	0.96	2.93	1.41
Twents Dutch	Patient engagement	2.00	1.29	2.14	1.63	2.06	1.45
	Expertise	2.53	1.32	1.75	1.31	2.17	1.36
	Loyalty	1.60	1.30	2.80	1.17	2.14	1.37
Total	Patient engagement	2.58	1.41	2.46	1.45		
	Expertise	2.80	1.42	2.21	1.39		
	Loyalty	1.84	1.34	3.26	1.16		

Measured on 5-point Likert scale (1= strongly disagree | 5= strongly agree);

The results of table 4.7 indicate positive effects for fluency on the patient/care-provider relationship, as the means for patient engagement, expertise, and loyalty are all higher for the Twents-Twents (M=3.27, SD=1.24; M=3.13, SD=1.49; M=2.14, SD=1.34) condition than for the Twents-Dutch condition (M=2.00, SD=1.29; M=2.53, SD=1.32; M=1.60, SD=1.30). These outcomes furthermore suggest that relationship duration influences the three constructs. Patient engagement (short-term: M=2.58, SD=1.41; long-term: M=2.46, SD=1.45) and expertise (short-term: M=2.80, SD=1.42; long-term: M=2.21, SD=1.39) score higher in the short-term conditions, whereas loyalty scores higher in the long-term conditions (short-term: M=1.84, SD=1.34; long-term: M=3.26, SD=1.16).

4.3. Hypotheses testing

4.3.1. Statistical testing

In this part of the report, the hypotheses set in chapter 2 will be either confirmed or rejected. The Multivariate Analysis of Variance (Wilks' Lambda) in table 4.8 shows whether the independent variables, duration of the relationship and use of dialect, or the moderator, professional experience, in the care industry, have a significant effect on the perceived patient/care-provider relationship. The test additionally shows whether there is a significant interaction effect between these variables influencing this model. The Wilk's Lambda test shows statistically significant difference in the perceived patient/care-provider relationship based on duration of the relationship, $F(3,116)= 18.19$, $p = 0.00$, Wilk's $\Lambda= 0.75$. As well as for fluency, $F(3,116)= 4.98$, $p = 0.00$, Wilk's $\Lambda= 0.89$, and an interaction effect between duration of the relationship and fluency $F(3,116)= 3.01$, $p = 0.03$, Wilk's $\Lambda= 0.93$. The moderator, professional care experience, appears to have no significant influence on the model as the p-values are above 0.05.

Table 4.8
Multivariate analysis Wilks' Lambda

	Wilks' Lambda	
	F-value	*Sig*
Relationship duration	13.19	.00
Fluency	4.98	.00
Duration of the relationship * Use of dialect	3.01	.03
Duration of the relationship * Professional care experiences	1.33	.29
Use of dialect * Professional care experiences	0.75	.53

To gain further insight into effects of fluency and relationship duration on perceived patient/care-provider relationship, a Tests of Between-Subjects Effects has been conducted, these results are visible in table 4.9.

Table 4.9
Tests of Between-Subjects Effects

		F-value	*Sig.*	*Partial η2*
Fluency	Patient engagement	13.54	.00	.10
	Expertise	8.27	.00	.07
	Loyalty	3.89	.05	.03
Relationship duration	Patient engagement	0.48	.49	.00
	Expertise	5.56	.02	.05
	Loyalty	28.40	.00	.19
Fluency * Relationship duration	Patient engagement	3.02	.08	.02
	Expertise	0.21	.64	.00
	Loyalty	1.31	.25	.01
Relationship duration * Professional care experience	Patient engagement	3.04	.08	.03
	Expertise	2.41	.12	.02
	Loyalty	1.57	.21	.01
Fluency * Professional care experience	Patient engagement	0.71	.40	.01
	Expertise	1.76	.19	.01
	Loyalty	0.89	.35	.01

Measured on 7-point Likert scale (1=strongly disagree / 7=strongly agree)

The Multivariate Analysis of Variance (test of between subject effects) in table 4.9 shows a significant effect of duration of the patient/care-provider relationship for the constructs expertise ($F(1,118) = 5.56$, $p = 0.02$) and loyalty ($F(1,118) = 28.40$, $p = 0.00$), confirming hypothesis H2B, showing an opposite effect for H2C, while completely rejecting H2A as the P-value of 0.49 confirms that there is no significant effect of relationship duration on patient engagement. The model shows a significant effect of fluency in for all three constructs; patient engagement ($F(1,118)=13.54$, $p = 0.00$), expertise ($F(1,118) = 8.27$, $p = 0.00$), and loyalty ($F(1,118) = 3.89$, $p = 0.05$). Thus, confirming hypotheses: H1A, H1B, H1C.

Furthermore, the results in table 4.9 show no significant interaction effect between the duration of the relationship and fluency for any of the constructs, thus disproving H3A (the interaction effect on patient engagement, $p = 0.08$), H3B (interaction effect on loyalty, $p = 0.64$), and H3C (interaction effect expertise, $p = 0.25$).

Additionally, the outcomes of the MANOVA do not indicate a significant moderating effect of a respondent's professional care experience for either fluency or relationship duration on the patient/care-provider relationship, thus disproving RQ1 and RQ2.

4.3.2. Summary of results

Hypotheses summary

A summary of the confirmed and rejected hypotheses has been provided in table 4.10.

Table 4.10
Summary of confirmed/rejected hypotheses

Hypothesis		Confirmed
H1A[1]	High fluency will lead to a better perceived patient engagement regarding the patient/care-provider relation, as compared to lesser fluency.	Yes
H1B	High fluency will lead to a better perceived loyalty regarding the patient/care-provider relation, as compared to lesser fluency.	Yes
H1C	High fluency will lead to a better perceived expertise regarding the patient/care-provider relation, as compared to lesser fluency.	Yes
H1D[1]		
H2A[1]	Long-term care will lead to a better perceived patient engagement regarding the patient/care-provider relation, as compared to short-term care.	No
H2B	Long-term care will lead to a better perceived loyalty regarding the patient/care-provider relation, as compared to short-term care.	Yes
H2C	Long-term care will lead to a better perceived expertise regarding the patient/care-provider relation, as compared to short-term care.	Opposite effect
H2D[1]		
H3A[1]	The effect of fluency on the perceived patient engagement regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.	No
H3B	The effect of fluency on the perceived loyalty regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.	No
H3C	The effect of fluency on the perceived expertise regarding the patient/care-provider relation is stronger for short-term relations, compared to long-term relations.	No
H3D[1]		
RQ1	Is the effect of fluency on the perceived patient/care-provider relationship moderated by the respondent's professional care experience?	No
RQ2	Is the effect of relationship duration on the perceived patient/care-provider relationship moderated by the respondent's professional care experience?	No

1: Adjusted or deleted after factor analysis

Model summarizing the results

A model based on this study's results is presented in figure 4.1.

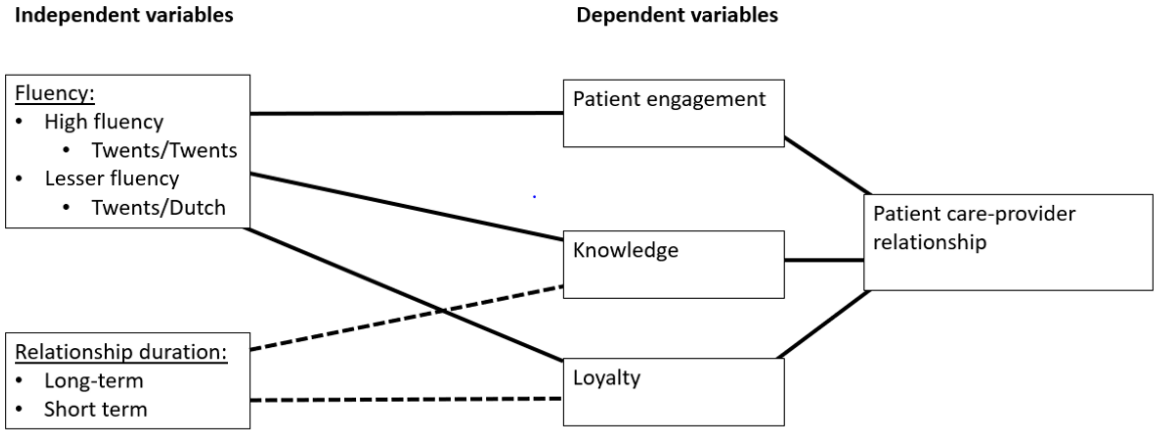

Figure 4.1

The influence of fluency and relationship duration on the patient/care-provider relationship

5. Discussion and limitation

The aim of this study was to discover the influence of dialect spoken by a care-provider to a dialect speaking patient on the patient/care-provider relationship and the role relationship duration plays in this. Results show that the fluency between a Twents speaking patient and a Twents speaking care-provider was significantly higher than that same patient with a Dutch speaking care-provider. The communication between the Dutch speaking care-provider and the Twents patient was perceived as fluent as well. A possible explanation for this is that respondents perceived mutual understanding between the two parties in all situations.

The results indicate a main significant effect for the use of dialect on the perceived patient/care-provider relationship. Perceived patient engagement, perceived expertise, and perceived loyalty all benefit from the higher fluency. A possible explanation is the aforementioned uncertainty reduction theory, which suggests that people are always trying to eradicate feelings of uncertainty as these are perceived as unpleasant (Berger & Calabrese, 1975). Less uncertainty benefits the relationship among different parties. It is likely that the high fluency between the patient and care-provider reduces the existing uncertainty, and thus improves the relationship. Another explanation that can be linked to the URT is that speaking the same dialect enables the parties to identify with each other, causing similarity, which Berger and Calabrese (1975) identify as one of key factors of uncertainty reduction.

The influence of a shared dialect on the patient/care-provider relationship is further supported by the social identity theory, which indicates that people identify themselves with others with similar traits (Tajfal & Turner, 1968). One of these traits could be a shared language or dialect. This identification can benefit the relationship between people who share this trait while hinder the relation between in-group and out-group members (David, 2015).

Additionally, the results show a significant effect of relationship duration on perceived loyalty and perceived expertise. A long-term relationship led to higher loyalty as compared to a short-term relationship, findings which are supporting Wu, Wang, and Wang's (2012) claims that long relations results in higher consumer loyalty than shorter relationships.

The direction of the effects of relationship duration on expertise is not in line with expectations set by the uncertainty reduction theory (Berger & Calabrese, 1975). The uncertainty reduction theory suggest that over time, uncertainty reduces and people can focus on aspects that increase expertise. This can, however, be explained by the different situations, thus indicating a limitation of the study. This difference in expertise by relationship duration is possibly caused by the different storylines represented in the two conditions. The short-term condition is a situation with an ambulance nurse, showing acute medical expertise, while the long-term situation displays no obvious

accounts of such knowledge.

Furthermore, the results indicate no interaction effect between fluency and relationship for any of the constructs. Indicating that there is no reason to assume that relationship duration influences the effect of fluency on the perceived patient/care-provider relationship and vice versa.

Moreover, the results display no significant moderator effect for the respondent's professional care experience. Zaichkowsky (2005) suggests that (professional) involvement in a topic influences views and opinions concerning a certain topic. That this study suggests no such effect might be explained by the familiarity of the participants with the care-industry. The youngest participant was aged 18, meaning all participants were adults, and it is not unlikely that adults are or have been involved with the care-industry at some points in their lives, either as patient, professional or acquainted with a patient or professional. Meaning that it's possible all or most participants had some involvement with the industry, instead of just those with professional care experience.

A limitation of the study is the focus on perceived relationship, instead of patient and care-provider experiences. This decision has been influenced by the many facets of the care industry. The industry is made up of many different types of care-providers, for example, doctors and nurses. Aside from these different professionals, the industry consists of many different types of patients, such as the elderly, the handicapped, or the ill. To be able to draw reliable conclusions concerning the effect of dialect on the patient/care-provider relationship, all these different relationship need to be explored and studied.

6. Conclusions and recommendations

6.1. The research question

In the introduction, this study's research question was first introduced; *''To what extent does congruency in dialect influence the perceived relation between a dialect speaking patient and care-provider, and what is the role of relationship duration in this?''* The first part of the research question focusses on the influence of dialect on the patient/care-provider relationship, while the second part focusses on the effect of relationship duration on it.

The aforementioned results provide sufficient ground to conclude that the dialect influences the perceived communication fluency in the relationship, and that this significantly benefits the perceived patient/care-provider relationship on three identified construct: patient engagement, Expertise, and loyalty. The results in table 4.9 indicate that the effects of fluency are particularly strong for perceived patient engagement and perceived expertise, while moderately affecting perceived loyalty.

Furthermore, table 4.7 shows that relationship duration has a great positive effect on perceived loyalty. The other effects of relationship duration are insignificant or can be explained as a study limitation. Additionally, table 4.9 shows that there is no significant interaction effect between fluency and relationship duration.

Based on the outcomes of this study several theoretical recommendations can be made. One of the theoretical recommendations is to further study the effects of dialect on patient/care-provider relationship or even interpersonal relationship in general, as there was little specific literature available. Gaining insight into the effect of dialect on interpersonal relationships could provide better understanding about dialect and language in these relationships and maybe how to use this as a potential advantage. A possible study could be whether congruency in dialect has educational benefits. The higher fluency, related to the dialectical congruency, results in higher ease of information processing (Schwarz & Clore, 2007). Easier information processing could possibly benefit the learning processes of students.

Another theoretical recommendation would be to research the effects of different dialects. Twents is only one of many Dutch dialects, and it is possible that the effects of dialect usage differ between the dialects. For example, the Frisian dialect is an official language, whereas Twents is a dialect of Low-Saxon language. Furthermore, some dialects are closer related to standard Dutch than others. It is possible that these differences in status also cause differences in fluency perception and thus have greater effects on the perceived patient/care-provider relationship.

A final theoretical recommendation is to study the effects of dialect and relationship duration on the relationship experiences of patient and care-providers alike instead of focussing on the perceived relation. This study could provide more depth and further insights into this study's results.

6.2. Practitioners take-away

The practical recommendations are directed at different beneficiaries. The first recommendation would be to care-providers. If a care-provider is able to speak the same dialect as the patient, use that dialect. It is an accessible way to improve the patient/care-provider relationship, which has several care-related benefits, including organizational benefits for the care provider.

Which leads to the second practical recommendation, directed at care organizations and care educational programs. Encourage the use of dialect by care-providers. The Dutch Broadcasting foundation (NOS, 2017) found that many dialect speakers face negativity and prejudices, especially in the professional fields of work and education. Possible hesitations and insecurities caused by these negative experiences can be opposed by encouragement and support from teachers and employers. Encouragement that could stimulate professionals to use dialect as a tool, thus benefitting from the advantages discovered in this study. However, this encouragement should not lead to workplace discrimination, hindering non-dialect speakers. Apart from this type of selection being unethical, it could lead to non-dialect speakers to mimic the dialect. It is possible that speaking dialect without truly knowing it might feel insincere towards the dialect speaker and hurt the relationship (Heller Baird & Parasnis, 2011). Stimulating the use of dialect by communicating the benefits towards the care-professional will enable professionals to use dialect, but only if the professional feels comfortable doing so, preventing the dialect to come across as fake or insincere.

A further recommendation for care-organizations would be to prevent, where possible, changing a patient's care-provider. This recommendation is for care-organizations providing long-term care specifically, by ensuring the patient has a steady care-provider, the relationship can grow and benefit from the advantages found. As the decrease in perceived expertise found in this study is presumed to be caused by a study limitation, the identified effect cannot be assessed critically. However, the significantly positive effect on loyalty seems beneficial for the providing organization, the care-professional, and the patient.

Following these recommendations would benefit the patient/care-provider relation without great investments from the organizations, professionals or society. Enabling all parties to benefit from the advantages a good patient/care-provider relationship offers. Experiencing these different benefits without many costs is opportune for an industry with high importance, but limited funds as the Dutch care-industry.

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Appendix

Appendix A: The situations presented in the questionnaire

Long term situaties

De 83-jarige Johan woont al zijn hele leven in Rossum, net buiten de dorpskern. Hij heeft veel in het verenigingsleven gedaan en is nog steeds erg betrokken met het dorp. Twents is zijn voertaal. Na het overlijden van zijn vrouw, zijn de noabers (dorpsgenoten) nog erg betrokken bij Johan en andersom. Hoewel Johan geestelijk gezond is, is hij slecht ter been. Om hier ondersteuning in te krijgen ontvangt hij 3 keer in de week thuiszorg van Marieke.

Hieronder een voorbeeld van de situatie:

Twents-Twents

Het is donderdagmiddag als Marieke bij Johan komt. Hij lijkt een beetje treurig terwijl hij normaal altijd zo goed gemutst is als ze komt. Ze besluit hem ernaar te vragen; "Johan, wat kiek ie toch bedrett'n. Wat mankeert oe?" Waarop Johan zegt dat hij zijn generatiegenoten mist, de een na de ander overlijdt en hij heeft het idee dat hij alleen overblijft; "Wicht, d'r blieft d'r nicht völ aower van miene generatie. Schoolkammereu en andere moat'n van vrooger loat mie in de stek. Ik möt ze allemoal wegbreng'n. Ik krie'j steeds minder angeloop. Bin bang da'k d'r alleen oawer blief. En doar bin 'k een lök verdreetig van." "Johan, ik begriep dat oe dat zeer döt. Kan 'k wat veur oe doon?" vraagt Marieke begripvol. Johan; "Ik deank het nich wicht. Dat is noe een keer 't leam'm, doar doo'j niks an."

Dutch-Twents

Het is donderdagmiddag als Marieke bij Johan komt. Hij lijkt een beetje treurig terwijl hij normaal altijd zo goed gemutst is als ze komt. Ze besluit hem ernaar te vragen; "Johan, wat kijk je terneergeslagen. Wat is er aan de hand?". Waarop Johan zegt dat hij zijn generatiegenoten mist, de een na de ander overlijdt en hij heeft het idee dat hij alleen overblijft; "Wicht, d'r blieft d'r nicht völ aower van miene generatie. Schoolkammereu en andere moat'n van vrooger loat mie in de stek. Ik möt ze allemoal wegbreng'n. Ik krie'j steeds minder angeloop. Bin bang da'k d'r alleen oawer blief. En doar bin 'k een lök verdreetig van." "Johan, dat is vervelend. Kan ik iets voor u doen?" vraagt Marieke begripvol. Johan; "Ik deank het nich wicht. Dat is noe een keer 't leam'm, doar doo'j niks an."

Scrapped from questionnaire Dutch-Dutch

Het is donderdagmiddag als Marieke bij Johan komt. Hij lijkt een beetje treurig terwijl hij normaal altijd zo goed gemutst is als ze komt. Ze besluit hem ernaar te vragen; ‘‘Johan, wat kijk je terneergeslagen. Wat is er aan de hand?’’. Waarop Johan zegt dat hij zijn generatiegenoten mist, de een na de ander overlijdt en hij heeft het idee dat hij alleen overblijft; ‘‘Ach zuster, ze gaat steeds meer dood uit mijn jeugd, vrienden en kameraden van vroeger. ’t wordt hier steeds stiller op ’t erf. Ik ben bang dat ik alleen over blijf. Ik heb de laatste tijd zoveel begrafenissen. Daar ben ik soms wat verdrietig van.’’ ‘‘Johan, dat is vervelend. Kan ik iets voor u doen?’’ vraagt Marieke begripvol. Johan; ‘‘Ik denk het niet zuster. Dat is nou een keer het leven. Daar doe je niks an.’’

Short term situations

Stan is 21 jaar en woont in een buurtschap tussen Losser en Oldenzaal. Zijn vader heeft een boerenbedrijf, wat hij t.z.t. over zal nemen en waar hij dus nu al druk aan het werk is. Op school spreekt hij Nederlands, maar thuis en met vrienden Twents. Op het erf staat een keet waar hij graag met vrienden vertoeft. Hij verzorgt het onderhoud zelf en is tijdens het repareren van het dak, door het plafond gezakt en heeft zijn been gebroken.

Hieronder een voorbeeld van de situatie

Twents-Twents:

De ambulancebroeder die hem ophaalt om hem naar het ziekenhuis te brengen vraagt wat er gebeurd is om een goede diagnose, en Stan op zijn gemak, te stellen. ‘‘Kearl, kearl, kö’j mie is vertell’n wat er gebeurt is? En woar döt ’t zeer?’’ Waarop Stan antwoord; ‘‘Volgens mie he’k ’t been brökk’n, want dat döt mie zo zeer. En ik heb n’n zeer’n kop, mer joa, ik heb gister’n ook völ bier had. Ik was met ’t dak van de keet bezig en doar bin’k deurhen zakt, en heur’n ik wat knapp’n. ’’ Ambulancebroeder: ‘‘Bin ie ook op ’n kop vall’n? Ik zee d’r niks an.’’ ‘‘Nee, dat niet’’ aldus Stan. ‘‘Ik kiek efkes of oe verder nog wat mankeert en dan goa’w noar ’t zeek’nhoes in Eanske. Bint oe va en mo in hoes?’’

Dutch-Twents

De ambulancebroeder die hem ophaalt om hem naar het ziekenhuis te brengen vraagt wat er gebeurd is om een goede diagnose, en Stan op zijn gemak, te stellen. ‘‘Jongen, jongen, wat is er toch gebeurt? Waar heb je last van?’’ Waarop Stan antwoord; ‘‘‘‘Volgens mie he’k ’t been brökk’n, want dat döt mie zo zeer. En ik heb n’n zeer’n kop, mer joa, ik heb gister’n ook völ bier had. Ik was met ’t dak van de keet bezig en doar bin’k deurhen zakt, en heur’n ik wat knapp’n. ’’ Ambulancebroeder: ‘‘Ben je ook op

je hoofd gevallen? Ik kan er niets aan zien trouwens" "Nee, dat niet" aldus Stan. "Ik onderzoek je even verder en dan gaan we naar het ziekenhuis in Enschede. Zijn je ouders thuis?"

Scrapped from questionnaire Dutch-Dutch

De ambulancebroeder die hem ophaalt om hem naar het ziekenhuis te brengen vraagt wat er gebeurd is om een goede diagnose, en Stan op zijn gemak, te stellen. "Jongen, jongen, wat is er toch gebeurt? Waar heb je last van?" Waarop Stan antwoord; "Volgens mij heb ik 't been gebroken, want dat doet toch zeer. Ik heb koppijn, maar dat kan ook komen omdat ik gisteren veel bier heb gehad. Ik was met 't dak van de keet bezig en daar ben ik door heen gezakt, en toen hoorde ik iets knappen. " Ambulancebroeder: "Ben je ook op je hoofd gevallen? Ik kan er niets aan zien trouwens" "Nee, dat niet" aldus Stan. "Ik onderzoek je even verder en dan gaan we naar het ziekenhuis in Enschede. Zijn je ouders thuis?"

Appendix B; Questionnaire item list

Original statement

Measuring Trust

My doctor is usually considerate of my needs and puts them first.

I feel my doctor does not do everything she should for my medical care.

My doctor is a real expert in taking care of medical problems like mine.

I trust my doctor's judgments about my medical care.

Measuring Loyalty

The relationship with this doctor is something I am committed to
The relationship with this doctor is something I intend to maintain indefinitely

This doctor is committed to this relationship with me

This doctor intends to maintain this relationship indefinitely.

Measuring Expertise

Expertise of mental health promotion methods and tools

Recognising the signs and symptoms of problems

Expertise of the main types of problems

Measuring Regard

This doctor accepts me the way I am

This doctor really cares for me

This doctor really knows how I feel about things

This doctor takes me seriously

Adjusted statement in English

Care-provider is considerate of patient needs and puts them first

Care-provider does do everything he/she should for patient's care

Care-provider is a real expert in taking care of the care-related problems of patient

Patient trusts care-provider's judgment about care

The relationship with care-provider is something patient is committed to.
The relationship with care-provider is something patient intends to maintain indefinitely.

The relationship with patient is something care-provider is committed to.
The relationship with patient is something care-provider intends to maintain indefinitely.

Care-provider has Expertise of health promotion methods and tools

Care-provider recognises the signs and symptoms of problems

Care-provider has Expertise of the main types of health problems

Care-provider knows patient well

Care-provider accepts patient the way he is

Care-provider really cares for patient

Care-provider really knows how patient feels about things

Care-prover takes patient seriously

Adjusted statement as used in the questionnaire

Zorgverlener begrijpt de behoeftes van patient en zet deze op de eerste plaats.

Zorgverlener doet wat hij/zij moet doen om patient de juiste zorg te verlenen

Zorgverlener is een expert in het oplossen van de zorg-gerelateerde problemen van patient

Patient vertrouwd zorgverlener's oordeel over zorg

Patient voelt zich verbonden met zorgverlener
De relatie met zorgverlener is iets patient is van plan om voor onbepaalde tijd te behouden

Zorgverlener voelt zich verbonden met patient
De relatie met patient is iets zorgverlener is van plan om voor onbepaalde tijd te behouden

Zorgverlener kent verschillende zorgmethoden en hulpmethodes

Zorgverlener herkent de tekenen en symptomen van problemen

Zorgverlener kent de belangrijkste problemen in de zorg

Zorgverlener kent patient goed

Zorgverlener accepteert patient zoals hij is

Zorgverlener geeft oprecht om patient

Zorgverlener weet waar patient zich goed bij voelt

Zorgverlener neemt patient serieus

Appendix C: Mandatory literature study log

Research questions literature study

For the literature study I have chosen to deviate from my main research questions and instead focus on two different questions:

*What **constructs** influence a **patient care-professional relationship**?*

*Which **phenomena** (theories and models) are at play in a **patient care-professional relationship** that could be related to the use of dialect?*

These question will enable me to gain understanding of the subtopic in my main research question. Based on that understanding I can create the optimal questionnaire to measure the influence of the Twents dialect on the relationship between a care-provider and his or her patient. The search constructs have been highlighted in bold.

Criteria preferred materials (books/articles, recency, language)

My preferred materials are articles relevant to the topic. Articles are preferred over books because articles are more accessible and higher in numbers. Recency is of less importance than relevance. However, older articles have to be critically assed to ensure the study is not out-dated. The importance of language of the materials is dependent on the topic, general information concerning the relation between care-provider and the patient have to be understandable to me, and whether that is in English or Dutch is not important. Materials concerning dialect are preferably in Dutch, due to the unique nature of Dutch dialects.

Selected Databases

My preferred database is Scopus, due to the broad scope of articles and my familiarity with the database. Additionally, PsycINFO due to the basis in social and behavioural science.

Relevant terms

Table 1

Relevant search terms

Concepts	Related terms	Smaller terms	Broader terms
Patient/Care-provider relationship	Doctor/patient relation*; Nurse/patient relation*; Psychologist/client relation*; Care provider relation*; physician-patient relation*; patient relations*; Client relation*;	-	Care provider – patient relation*
Constructs	Constructs; Variables; Component; Constituent; Element; Factors	Trust Communication Expertise Loyalty	-
Phenomena	Model; Theory;	In-group; Out-group; Doctor patient; Relationship model;	Phenomenon

Search actions (show at least 10 of the search actions)

Table 2

Search actions

NR	Date	Database	Search action + search technique	Total hits
1	11-03-2019	Scopus	(Constructs OR Variables OR Component OR Constituent OR Element) AND (“Doctor-patient relation*” OR “Nurse-patient relation*” OR “Psychologist-client relation*” OR “Care provider relation*” OR “physician-patient relation*” OR “patient relations*”)	13372
2	11-03-2019	Scopus	Construct* AND (“Doctor-patient relation*” OR “Nurse-patient relation*” OR “Psychologist-client relation*” OR “Care provider relation*” OR “physician-patient relation*” OR “patient relations*”)	3987
3	11-03-2019	Scopus	Construct* AND “patient relation*”	3463
4	11-03-2019	Scopus	Elements AND “Patient relation*” AND NOT technology	3320
5	11-03-2019	PsycINFO	Elements AND “patient relation*”	1010
6	11-03-2019	PsycINFO	"Patient relation*" AND construct*	1623
7	11-03-2019	Scopus	Factor* AND (“Doctor-patient relation*” OR “Nurse-patient relation*” OR “Psychologist-client relation*” OR “Care provider relation*” OR “physician-patient relation*” OR “patient relations*”)	28445
8	11-03-2019	PsycINFO	Factor* AND (“Doctor-patient relation*” OR “Nurse-patient relation*” OR “Psychologist-client relation*” OR “Care provider relation*” OR “physician-patient relation*” OR “patient relations*”)	6970
9	11-03-2019	Scopus	(trust AND "patient relation")	5930
10	17-04	Scopus	“Patient” AND “Relation” AND constructs	3788

Found references in APA style

Ridd, M., Shaw, A., Lewis, G., & Salisbury, C. (2009). The patient–doctor relationship: a synthesis of the qualitative literature on patients' perspectives. *British Journal of General Practice, 59*(561), e116-e133. doi:10.3399/bjgp09X420248

Platonova, E. A., Kennedy, K. N., & Shewchuk, R. M. (2008). Understanding patient satisfaction, trust, and loyalty to primary care physicians. *Medical Care Research and Review, 65*(6), 696-712. doi:10.1177/1077558708322863

Reflection

My first orientation on the subject checking the theoretical toolbox we made for module 11. This toolbox worked as a summary for all theories and models etc. taught in the past 3 years. Based on the input from my toolbox I could identity certain phenomena that might have played part in this study. After doing so, I wrote to main research questions and based on these I started searching for literature. After unfruitful searches on scholar, for which I selected 'show based on relevance' and PhycINFO, I changed my strategy.

I had found Ridd, Shaw, Lewis, and Salisbury (2009), who identified four constructs. These constructs enabled me to search more targeted, decreasing the total number of hits, but increasing the relevance. Another data collection method I applied was snowballing, using the sources used by sources I found. This proved to be a very fruitful method that helped me come up with new terms in the process.

Once I found new literature, I firstly checked relevance by checking the title, abstract and keywords. If an article or book seemed relevance I would skim through the introduction and conclusion, after doing so I could usually find whether or not an article was useful. I assessed the quality of my sources by checking where or who published the source and the number of citations. Other checks were more general, such as checking the presence of a DOI.

The next time I am faced with a similar challenge, I would start differently. I would start with very broad and generic searches, to get familiar with the keywords and constructs of a certain topic, to have a starting point. Which is something I missed in this literature search. I think having a cleared starting point could have saved me time. I would not change much in my further strategies, I feel like I assessed relevance and quality properly and the snowball technique proved useful as well.