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Nonverbal Communication through Touch: Meanings for Physical Therapists Working in a Hospital Environment

Theme: Chronic care.

Contribution to the discipline: One of the contributions of this study refers to the importance of the professional physical therapist receiving necessary training during their formation to obtain skills in the types and ways of touching. This allows understanding the real needs of the patient through the subjectivity of this relationship, which could improve the quality and humanization of care. Thus, it is suggested a critical reflection on the curriculum that make up the training of the physical therapist, which, despite having disciplines in the area of human knowledge, its content is not about the importance of types and ways of touching; thus, professionals that mistake assistance by humanization emerge. Although the study was conducted with physical therapists, the touch is a form of nonverbal communication widely used by other health professionals, including nursing, which allows similar reflections on the hospital performance of these professionals. The findings of this study may still stimulate research on the same theme involving nursing professionals.

ABSTRACT

Objectives: To know the most used types of touch and understand their meanings for physical therapists working in a hospital environment, from the perspective of their feelings, attitudes and behaviors during care. **Materials and methods:** Qualitative case study conducted by physical therapists working at a hospital in Brazil. For data collection, participant observation and semi-structured interviews were used as techniques. Data were analyzed according to the thematic content analysis proposed by Minayo. **Results:** 16 physical therapists participated in the study and, from the analysis of the empirical material, four thematic categories emerged: Instrumental touch as a fundamental resource of hospital physical therapy assistance; expressive touch: Its little presence does not mean absence of affection; physical therapist's feelings related to touch and difficulty talking about touch means that there is a deficiency in training. **Conclusions:** The underuse of expressive touch revealed the lack of knowledge and unpreparedness in the formation of the physical therapist,

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which, added to the lack of self-knowledge, hinders the affection and the creation of bonds in relationships. All of this justifies the rare studies on affective touch in health, which reflects an area to be explored and the need to sensitize professionals to influence the quality and humanization of care.

KEYWORDS (SOURCE: DECS)

Physical therapists; touch perception; nonverbal communication; kinesics; body language; humanization of assistance.

Comunicación no verbal por medio del toque: significados para los fisioterapeutas que actúan en ambiente hospitalario

RESUMEN

Objetivos: conocer los tipos de toque más utilizados y comprender sus significados para fisioterapeutas que actúan en ambiente hospitalario, en la perspectiva de sus sentimientos, actitudes y comportamientos durante la asistencia. **Materiales y métodos:** estudio de caso cualitativo realizado con fisioterapeutas que trabajan en un hospital en Brasil. Para la recolección de datos se utilizaron como técnicas la observación participante y las entrevistas semiestructuradas. Los datos se analizaron según el análisis de contenido temático propuesto por Minayo. **Resultados:** 16 fisioterapeutas participaron en el estudio y, a partir del análisis del material empírico, surgieron cuatro categorías temáticas: toque instrumental como recurso fundamental de la asistencia de fisioterapia hospitalaria; toque expresivo: su poca presencia no significa ausencia de afecto; sentimientos del fisioterapeuta relacionados con el toque y dificultad para hablar sobre el toque se traduce en una deficiencia en la formación. **Conclusiones:** la subutilización del tacto expresivo reveló la falta de conocimiento y preparación en la formación del fisioterapeuta, lo que, sumados a la falta de autoconocimiento, dificulta el afecto y la creación de vínculos en las relaciones. Lo anterior justifica los escasos estudios sobre el toque afectivo en la salud, que refleja un área por explorar y la necesidad de sensibilizar a los profesionales para que influyan en la calidad y la humanización de la asistencia.

PALABRAS CLAVE (FUENTE: DECS)

Fisioterapeuta; percepción del tacto; comunicación no verbal; lenguaje corporal; cinésica; humanización de la atención.

Comunicação não verbal por meio do toque: significados para fisioterapeutas que atuam em ambiente hospitalar

RESUMO

Objetivos: conhecer os tipos de toque mais utilizados e compreender seus significados para fisioterapeutas que atuam em ambiente hospitalar, na perspectiva de seus sentimentos, atitudes e comportamentos durante a assistência. **Materiais e métodos:** estudo de caso qualitativo realizado com fisioterapeutas que atuam em um hospital do Brasil. Para a coleta de dados, utilizaram-se como técnicas a observação participante e a entrevista semiestruturada. Os dados foram analisados segundo a análise temática de conteúdo proposta por Minayo. **Resultados:** participaram do estudo 16 fisioterapeutas e, da análise do material empírico, emergiram quatro categorias temáticas: toque instrumental como recurso fundamental da assistência fisioterapêutica hospitalar; toque expressivo: sua pouca presença não significa ausência de afetividade; sentimentos do fisioterapeuta relacionados ao toque e dificuldade em falar sobre o toque traduz deficiência na formação. **Conclusões:** a subutilização do toque expressivo revelou o desconhecimento e o despreparo na formação do fisioterapeuta que, somados à ausência de autoconhecimento, dificulta a afetividade e a criação de vínculos nas relações. Tudo isso justifica os raros estudos sobre o toque afetivo na saúde, o que traduz uma área a ser explorada e a necessidade de sensibilizar os profissionais para influenciar na qualidade e humanização da assistência.

PALAVRAS-CHAVE (FONTE: DECS)

Fisioterapeuta; percepção do tato; comunicação não verbal; linguagem corporal; cinésica; humanização da assistência.

Introduction

Communication is an inseparable part of human relations, through which we can transform our reality (1). When appropriate, it favors the effectiveness, quality, humanization of care (1-3), trust in the relationship and assistance in the treatment of patients (4).

Communication occurs in two ways: Verbal, through words, spoken, written or sound messages, and nonverbal, mostly unconsciously transmitted and demonstrated through touch, look, body language, gestures, facial expressions, which reveal feelings and intentions (5-6).

Nonverbal communication refers to every message sent not through words (7), and its skills correspond to 60-90 % of interpersonal communication, besides increasing patient satisfaction and treatment adherence (8).

Touch is an effective and inevitable part of the practices of most health professionals (9) and can be of the following type: *Instrumental*, when physical contact only exists during technical procedures and for the provision of care; *expressive* or *affective*, which is usually spontaneous and applied in a more humane manner, unrelated to a specific activity; *expressive-instrumental*, when a technical procedure is accompanied by the affective touch (1). There is also the therapeutic touch, considered a holistic imposition of hands, not routinely used by health professionals and, therefore, with no focus in this study (10).

Touch stimulates communication, demonstrates affection, acceptance, support, security, empathy and closeness to the patient. In this context of human interaction, expressive touch is a positive stimulus that promotes bonding and trust (11), facilitates quality relationships and can provide closer relationship (12), and lead to physical well-being (13).

Poor use or inappropriate use of touch may distance patient and professional (14), which can be a result of the professional's lack of knowledge or fear of being misunderstood (15), self-knowledge problems and internal balance or an environment with low security and support to carry it out (16-17).

Therefore, the use of touch requires professional knowledge and skills regarding nonverbal communication to make their care a moment focused on the human aspect (18). Such knowledge evolves with training and experience (19), and there must also be affective competence (20).

Inherently, the physical therapist has a close relationship with the patient's body, also communicating through touch (11). Despite this proximity, physical therapy has its origin linked to the Cartesian and biomedical model (21), besides a technical training restricted to physical aspects and resources, which does not consider the human point of view in understanding the individual's emotional and social needs (22). This perspective is reflected in the knowledge gap identified in the search for studies on nonverbal communication, especially regarding touch, in the performance of the physical therapist.

In this sense, the research problem was limited in the little use of expressive touch, which seems to portray the lack of knowledge of the values added to it, and the lack of preparation in this professional's training, originated from our health model.

Thus, this study aimed to know the types of touch most used and to understand the meanings of touching for the physical therapists who work in a hospital environment, from the perspective of their feelings, attitudes and behaviors during care.

Material and Method

This is an exploratory study with a qualitative approach (23), which used the case study (24) as a research strategy, and Minayo's content analysis (25) as a data analysis technique.

The case study is the strategy of choice to investigate a contemporary phenomenon in its real-life context, especially when the boundaries between the phenomenon and the context are not clearly defined (24). It is a naturalistic and flexible investigation that, through the use of many sources of evidence and information, aims to describe intensively and profoundly one or more cases that, in the health area, can be represented by the patient, the health professional, the patient-therapist dyad, by the therapeutic process, among others (26).

The study was conducted in a large hospital in Brazil, a provider of highly complex services, and was previously approved by the Research Ethics Committee, under the Certificate of Presentation for Ethical Appreciation No. 45938215.6.0000.5404. The participa-

tion in the study was subjected to the signing of the Informed Consent Form (ICF), which clarified to the participants the objectives and procedures of the study, guaranteed anonymity in the exposure of research findings, ensured that no harm of any origin was foreseen considering the participation in the study, and cited, as the sole foreseen benefit, the contribution to the expansion of scientific knowledge on the study subject.

The study population consisted of 18 physical therapists who made up the physical therapy team of a Brazilian hospital. The study sample was intentionally composed, determined by the following inclusion criteria: Being a physical therapist hired for a minimum of six months. Exclusion criteria were defined as a researcher involved in the research process. All invited professionals agreed to participate in the study, and the final sample was represented by 16 physical therapists; two team professionals who were also authors of this study were not included in the sample.

The sample closure occurred due to exhaustion, that is, data collection occurred with all participants who were part of the researcher's universe (27).

For data collection, *field observation* was first performed in the participant modality, in which the researcher's role in the investigated situation may vary from full participation to complete distancing (28). Considering that the main researcher was also the institution's physical therapist team coordinator and that her presence could cause intimidation in the professionals' practice, another institution's physical therapist who participated in the same research group made the observations.

Since the observer must know the specific purposes of the study so that the observation guarantees a more complete analysis of the problem (23), a script for reflective and descriptive annotations based on the study model was used for field observation. Triviños (28), and a script for the analysis of touch in tachetic and proxemic perspectives, as suggested by Maria Júlia Paes (1), which allowed us to identify if the performed touch was expressive or instrumental.

The observations were made from August 2015 to November 2016, at random, without prior notice and respecting the activity of each physical therapist. A total of 19 observations were made, with an average duration of five hours each, with a variation of 4.47 hours. One subject required three observations and another two observations, both for confirmation of the data, and this need was due to the high demand of the sector, resulting in quick answers.

After each observation, the collaborator would meet with the main researcher to describe what was noticed during the visits: How and when the physical therapists touched their patients, the way they communicated with them, the affectivity, their attitudes and behaviors, all duly recorded in the area directed to free reflective annotations of the observation script. Participating observations were named by the letter "O", followed by the observation number.

Semi-structured interviews were conducted by the lead author of the study and collected immediately after the completion of the field observations in order to avoid influences on the participants' behavior during the observations. For its accomplishment, an interview script was elaborated based on the model proposed by Turato (29).

The 16 interviews were recorded in audio and performed in the participant's own work, in a reserved place according to their availability. The interviews lasted a maximum of 23 minutes and a minimum of 16 minutes, with participants' perceived difficulty in talking about the topic. They did not have access to the transcript of the interviews to confirm the data. The interviews were later transcribed and named by the letter "E", followed by the number corresponding to the order that they were performed.

The data obtained from the participant observations and semi-structured interviews were analyzed through Minayo's thematic content analysis (25), which proposes three stages: In the first, called "pre-analysis", the floating reading is performed, the constitution of the corpus, the formulation and reformulation of hypotheses and objectives; text cut in record units, context units, cuts, categorization, coding modality and more general theoretical concepts. In the second stage, the material is explored and the researcher, considering the data, proposes inferences, performs interpretations and seeks the formation of theoretical or empirical categories that will specify the themes. In the third stage, the author suggests the treatment of the results obtained and their interpretation (25-30).

To support the process of analysis and the creation of inferences, two main works were used as theoretical reference: *Comunicação tem remédio*, by Maria Júlia Paes da Silva (1), and *Tocar: o significado humano da pele*, by Asley Montagu (31).

Regarding methodological strictness, in order to ensure the study's credibility, different data collection techniques (observation and interview) were carried out with the use of instruments built according to the literature, peer-reviewed and tested in a pilot data collection. In order to guarantee its reliability, the empirical material from the data collection was analyzed by peers, including the researcher, the study advisor and the research group, and based on the references already mentioned. The study site, the inclusion and exclusion criteria of participants, as well as the data collection process and analysis were detailed to ensure the transferability and reliability of the study (32).

No feedback was given to participants at the end of the study.

Results

The age range of physical therapists ranged from 25 to 39 years old, and only one participant was male. As proposed by Minayo (28-29), from the data analysis, four main thematic categories emerged, described following.

Instrumental touch as a fundamental resource of hospital physical therapy care

The first emerging category of material analysis revealed that touch is the fundamental work instrument for a physical therapist, a requirement of the practice itself and, as a consequence, instrumental touch is predominant during their care in the hospital environment.

Through the script of tachetic and proxemic analysis, it was found that the touch was frequent during the physical therapist's assistance, which corroborated the close physical proximity between professional and patient. Despite this physical proximity, affection was rarely evidenced through the expressive type touch, which is the one performed to understand the subjectivities implicit in the relationship.

Expressive touch: Its low presence does not mean absence of affection

Despite the rare presence of expressive touch, clear manifestations of affection were found, with visible signs of care through verbal and nonverbal communication. Even during the instrumental touch, attitudes and gestures of affection, bonding and humanization were observed in most professionals.

Such actions of care by touching were demonstrated by permission requests that preceded the care, concern to explain the technique, make the patient comfortable, besides the proximity and calm tone of voice during verbal communication. Thus, the touch has been shown to favor the proximity and the actions of care and affection of this professional.

In this context, when touching the patient, even if instrumentally, the professional used the look, gestures, empathic postures, facial expressions, always followed by a smile, attention and care with the pressure exerted during the touch. Physical therapists also paid attention to the patient's comfort signals through the positioning performed, the pain signals manifested by the resistance to the exercise or the withdrawal reflex of the painful stimuli, through displeasure expressions and also through the expressions before the vital signs observed in the patients' monitors or before the breathing pattern, through mechanical ventilators.

Physical therapist feelings related to touch

Although expressive touch was rare during the observations, feelings of affection, bonding and energy exchange during touching were reported, in contrast to the visualized behaviors. Physical therapists who perceived touch as affection related it with sensitivity, feeling and perception:

> "I often touch like that… with love. Touch their head, their face." [E6]

> "[...] because he [the patient] can't express himself, so I think it gives you a ... need for greater care, greater attention". [E9]

The balance between positive and negative affects becomes a challenge for health professionals, as the hospital environment causes them to experience moments of healing, hope, well-being and, on the other hand, there are periods of suffering, pain and death.

Affection was confirmed to occur when there is a bond with the patient, which seemed to be more evident in patients with pain, elderly, long-term babies, unable to express themselves or when they are seriously ill:

"[...] There are patients that we get much more involved, especially if they have serious illness... then we always touch them more carefully". [E7]

"[...] because he [the patient] can't express himself, so I think we end up feeling a ... need for greater care, greater attention". [E9]

Physical therapists who perceive touch as a bond promoter also associate it with closeness, contact, intimacy, and trust:

"So, touch is a way to approach this patient and to think of the patient as a human being and not just as a patient who needs rehabilitation." [E4]

Subjects who described touch as energy exchange reported that they also want to convey positive feelings to patients to aid their recovery. Confirming this belief, they express positive or negative feelings after touching depressed patients:

"I think touch is a transmission of energy. It's something I get. It's a donation, right? " [E15]

Difficulty talking about touch means there is a deficiency in training

The difficulty in discussing expressive touch was inferred as a deficiency in the training of the physical therapist. In the speeches, an embarrassment is noticed when commenting on something that seemed to be unknown, which can be apprehended by the many moments of silence and reflection on what to say. Some reported surprise and shame that they had never realized the importance of emotional touch, and most acknowledged the difficulty in approaching the topic because they feel unprepared since their academic education. They attributed such difficulty because the main learning focus was technicist. This can be proven through the many speeches of physical therapist professionals:

"[...] I think it should be in the curriculum because it makes a *great* [emphasis on pronunciation] difference." [E4]

"[...] in undergraduate course [the subject is treated] very little, we didn't talk about it that much". [E10]

Currently, the curricular organization is based on techniques, procedures, care methods and clinical-therapeutic approach and very little is taught about human practices, capable of providing an approximation between physical therapy and patients' needs.

Discussion

In health, the act of touching is a means of relating and communicating, used by various professions to express care (33). In physical therapy, in particular, touch underlies the actions of this professional, as it allows the therapist to approach the patient's body in a deep and legitimate way, going beyond simple skin-to-skin contact, which differentiates this profession (15).

Physical therapists allow themselves to approach the patient's body due to the dialogue promoted by touch and movement, which is vital in this practice, and, through their skills, they explore the body's capacity, its limits and possibilities. This is because the professional directly participates in the therapy, which makes them experience it, allows them to collect data and to understand them in their many meanings (15).

Considering that the instrumental touch is very frequent in the physical therapist's assistance and that the simple act of touching favors the physical, affective and cognitive proximity with the patient (11), this professional has a privileged position for humanized care; however, he/she needs knowledge to perform such skills.

Among the types of touch, expressive touch stands out for facilitating the development of quality relationships, being used in the closest relationships to show support and acceptance, which promotes individual comfort (9). For the recipient, the other's touch can be soothing, relieve pain and minimize negative emotions (12), so that its use by health professionals can bring numerous benefits and provide a better relationship with the patient.

Thus, it is important for the physical therapist to understand the types of touch and to use the expressive touch more often, consciously and intentionally, because it is associated with better interaction and care involvement, which favors integral care, capable of continuously shaping the patient's health needs.

As professionals become involved with patients, characteristics such as affection, reciprocity, trust, respect and bonding manifest and become more evident (15). The evidence of affection may appear in the different ways of *communicating,* in getting closer to the other (proxemic), in how to talk to someone (*Paralanguage*) and during the behavior of the body when a relation is established (*Kinesic*) (8).

It was found that physical therapists used nonverbal communication to provide greater empathy, bonding and affection during the sessions, but that expressive touch for this purpose was underused. On the other hand, during interviews, professionals reported experiencing feelings of affection when touching patients, which indicates that touch is so close to care that professionals do not realize that, in their automatic attitudes, they use many types of touch. There is no way to separate their techniques from the subjectivity surrounding this relationship.

In this context, it is noteworthy that nonverbal communication was rarely used consciously by professionals, as a way to facilitate communication or show affection of the relationship with the patient, which indicates the lack of knowledge and unpreparedness of these professionals for this type of communication.

In addition to professional training, touching the other, especially when in suffering, requires professional emotional preparation and self-knowledge. Some physical therapists show sensitivity to interpret patients' messages, especially when it comes to nonverbal communication and feelings (22). However, to learn nonverbal communication is possible and necessary, considering its importance for intersubjective interactions, in addition to promoting quality in health care activities (34).

In health, attention often turns to cognitive and rational aspects, and little emphasis is placed on affect in human, social and environmental relationships. Understanding the importance of affectivity in relationships is justified by the need to contemplate the subject in its entirety, to recognize the psychosocial dimensions of the professional that arise in the person-environment interrelationship and to unveil how these affects imply the development of their performance (35).

Affections presented by positive aspects generate motivation and satisfaction among professionals (36). And when they arise in relationships and bonds, they contribute to the strengthening of the professional in the search of improvement of his/her work and social commitment (37).

The concept of bonding is polysemic and is articulated with the concepts of humanization (37). The bond promotes the possibility of the professional to establish therapeutic plans more appropriate to the reality of the patients, which may determine adherence to treatment due to trust and commitment sharing (38).

Thus, touching means engaging with one another in a reciprocal energy exchange (36). By touching someone, not only their body is touched, a person is touched with all their memory, which is an essential dimension for caring (39).

In this study, it is clear that the academic education of these professionals focused on the social and/or ethical and human attention did not include knowledge about the types and ways of touching, which does not fully meet the needs of the patient. In addition, these professionals must adapt to the model of organization and attention to the population.

One of the possibilities to change this scenario is to insert, in the curriculum of Physical Therapy course, teachings about human sciences subjects, besides reflections that favor the interpersonal relationship of the physical therapist with the patient (22).

Conclusion

Touch is so embedded in the physical therapist's universe of activities that it seems to have been limited to one technique and is rarely used as a tool of affection and humanization. This finding is evidenced by the interviews and the attitudes of affection observed during care, but which materialized through words, gestures, proximity, look and concern, but not through expressive touch.

The underuse of expressive touch evidences the lack of preparation in the formation of the physical therapist, characterized by the lack of knowledge about the types and the ways of touching and the lack of stimulus to self-knowledge, a prerequisite for affection and the creation of bonds.

More literature is needed about the human and affective touch in the health area, as opposed to the still predominant mechanistic formation, which reflects an area to be explored and one of the ways to sensitize professionals on the importance and appreciation of the expressive touch, which provides individualized care that addresses the patient's real needs, better professional-patient relationship and communication, and more humanized health care.

Given the findings of this study, it is recommended to rethink how the act of touching has been taught and used by the physical therapist during the care of hospitalized patients.

As a limitation of the study, it is noticed that the sample studied was only from physical therapists graduated from private universities, which does not allow generalizing the results. Thus, further studies are suggested in populations coming from federal and state institutions. It is also noted that the low use of expressive touch was evidenced in the hospital environment, since this study did not cover other spheres of the professional physical therapist, such as primary and secondary care, so the findings cannot be generalized.

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References

1. Silva MJP. Comunicação tem remédio: a comunicação nas relações interpessoais em saúde. Sao Paulo: Loyola; 2013
2. Bridges EP, Couto DL, Lara HMS, Santana JCB. Comunicação não verbal na unidade de terapia intensiva pediátrica: percepção da equipe multidisciplinar. REME Rev. Min. Enferm. 2014;18(1):152-7. DOI: https://doi.org/10.5935/1415-2762.20140012
3. Jesus LMT, Simões JFFL, Voegeli D. Comunicação verbal com pacientes inconscientes. Acta Paul. Enferm. 2013;26(5):506-13. DOI: https://doi.org/10.1590/S0103-21002013000500016
4. Aredes MA, Bahia LA, Silva CSMC, Aragão D, Mello R. A comunicação entre a equipe de saúde em uma clínica cirúrgica: o olhar dos profissionais de um programa de residência multiprofissional em saúde. Rev. Pesq. Cuid. Fundam. 2013;5(4):458-66. DOI: https://doi.org/10.9789/2175-5361.2013v5n4p458
5. Hamesh Das DM. Forms of communication. Nurs. J. India. 1975 [cited 2019, Mar 15];66(3):55-7. Available from: https://www.ncbi.nlm.nih.gov/pubmed/1039652
6. Sadala MLA, Stefanelli MC. Desenvolvendo a habilidade em comunicação. Rev. Paul. Enferm. 1995 [citado 29 abril 2018];14(2/3):66-76. Disponível em: http://bases.bireme.br/cgi-bin/wxislind.exe/iah/online/?IsisScript=iah/iah.xis&src=google&base=BDENF&lang=p&nextAction=lnk&exprSearch=2028&indexSearch=ID
7. Edwards BJ, Brilhart JK. Communication in nursing practice. Saint Louis: C.V. Mosby; 1981.
8. Lorié Á, Reinero DA, Phillips M, Zhang L, Riess H. Culture and nonverbal expressions of empathy in clinical settings: A systematic review. Patient Educ. Couns. 2017; 100(3):411-24. DOI: https://doi.org/10.1016/j.pec.2016.09.018
9. Pedrazza M, Minuzzo S, Berlanda S, Trifiletti E. (2015). Nurses' comfort with touch and workplace well-being. West. J. Nursing Res. 2015;37:781-98. DOI: https://doi.org/10.1177/0193945914527356
10. Krieger D. The therapeutic touch: how to use your hands to help or to heal. New York: Prentice Hall; 1979.
11. Bjorbækmo WS, Mengshoel AM. "A touch of physiotherapy" — the significance and meaning of touch in the practice of physiotherapy. Physiother. Theory Pract. 2016;32(1):10-9. DOI: https://doi.org/10.3109/09593985.2015.1071449
12. Jakubiak BK, Feeney BC. Affectionate Touch to Promote Relational, Psychological, and Physical Well-Being in Adulthood: A Theoretical Model and Review of the Research. Personal. Soc. Psychol. Rev. 2017;21(3):228-52. DOI: https://doi.org/10.1177/1088868316650307
13. Feeney BC, Collins NL. A new look at social support: A theoretical perspective on thriving through relationships. Personal. Soc. Psychol. Rev. 2015; 19(2):113-47. DOI: https://doi.org/10.1177/1088868314544222
14. Subtil MML, Goes DC, Gomes TC, Souza ML. O relacionamento interpessoal e a adesão na fisioterapia. Fisioter. mov. 2011; 24(4):745-53. DOI: http://dx.doi.org/10.1590/S0103-51502011000400020
15. Kelly M, Tink W, Nixon L, Dornan T. Losing touch? Refining the role of physical examination in Family medicine. Can. Fam. Physician. 2015 [cited 2019, Jan 23];61(12):1041-3, Available from: https://www.cfp.ca/content/cfp/61/12/1041.full.pdf

16. Airosa F, Falkenberg T, Ohlen G, Arman M. Tactile massage as part of the caring act. A qualitative study in short-term emergency wards. J. Holist. Nurs. 2016;34(1):13-23. DOI: https://doi.org/10.1177/0898010115579769

17. Ellingsen DM, Leknes S, Løseth G, Wessberg J, Olausson H. The Neurobiology Shaping Affective Touch: Expectation, Motivation, and Meaning in the Multisensory Context. Front. Psychol. 2016;6:1.986. DOI: https://doi.org/10.3389/fpsyg.2015.01986

18. Schimidt TCG, Silva MJP. Reconhecimento dos aspectos tacêsicos para o cuidado afetivo e de qualidade ao idoso hospitalizado. Rev. Esc. Enferm. USP. 2013;47(2):426-32. DOI: https://doi.org/10.1590/S0080-62342013000200022

19. Puggina AC, Ienne A, Carbonari KFBSF, Parejo LS, Sapatini TF, Silva MJP. Percepção da comunicação, satisfação e necessidades dos familiares em unidade de terapia intensiva. Esc. Anna Nery Rev. Enferm. 2014;18(2):277-83. DOI: https://doi.org/10.5935/1414-8145.20140040

20. Moura MMD, Guimarães MBL, Luz M. Tocar: atenção ao vínculo no ambiente hospitalar. Interface Comun. Saúde Educ. 2013;17(45):393-404. DOI: https://doi.org/10.1590/S1414-32832013005000011

21. Silva ID, Silveira MFA. A humanização e a formação do profissional em fisioterapia. Ciênc. Saúde Colet. 2011;(Supl. 1):1535-46. DOI: https://doi.org/10.1590/S1413-81232011000700089

22. Nápoles RAL. Contribuições da psicanálise para um novo enfoque na relação fisioterapeuta-paciente. Brasília (DF): Universidade de Brasília; 2015.

23. Ludke M, Andre MEDA. Pesquisa em educação: abordagens qualitativas. 2ª ed. São Paulo: EPU; 2013.

24. Yin RK. Estudo de caso: planejamento e métodos. Tradução Ana Thorell. 4ª ed. Porto Alegre: Bookman; 2010.

25. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 14ª ed. São Paulo: Hucitec; 2014.

26. Serralta FB, Nunes MLT, Eizirik CL. Considerações metodológicas sobre o estudo de caso na pesquisa em psicoterapia. Estud. Psicol. [on-line]. 2011; 28(4):501-10. DOI: https://doi.org/10.1590/s0103-166x2011000400010

27. Fontanella BJB, Luchesi BM, Saidel MGB, Ricas J, Turato ER, Melo DG. Amostragem em pesquisas qualitativas: proposta de procedimentos para constatar saturação teórica. Cad. Saúde Publica. 2011;27(2):389-94. DOI: https://doi.org/10.1590/S0102-311X2011000200020

28. Triviños ANS. Introdução à pesquisa em Ciências Sociais: a pesquisa qualitativa em educação. São Paulo: Atlas; 2009.

29. Turato ER. Tratado da metodologia da pesquisa clínico-qualitativa: construção teórico-epistemológica, discussão comparada e aplicação nas áreas de saúde e humanas. Petrópolis (RJ): Vozes; 2013.

30. Minayo MCS. Amostragem e saturação em pesquisa qualitativa: consensos e controvérsias. Rev Pesq Qual. 2017 [citado 12 jan. 2018];5(7):1-12. Disponível em: https://editora.sepq.org.br/index.php/rpq/article/view/82/

31. Montagu A. Tocar: o significado humano da pele. 10ª ed. São Paulo: Summus; 1988.

32. Crawford HK, Leybourne ML, Arnott A. How we Ensured Rigour in a Multi-site, Multi-discipline, Multi-researcher Study. Forum Qualitative Social Research Sozialforschung. 2000;1(1):art. 12. DOI: https://doi.org/10.17169/fqs-1.1.1122

33. Knapp ML. La comunicación no verbal: el cuerpo y el entorno. Barcelona, Espanha: Paidós; 1980.

34. Campos FE, Aguiar RAT, Belisário SA. A formação superior dos profissionais do SUS. Em: Giovanella L, Escorel S, Lobato, LVC, Noronha JC, Carvalho AI, organizadores. Políticas e sistema de saúde no Brasil. Rio de Janeiro: Editora Fiocruz; 2008. p. 1.011-35.

35. Bezerra YRN, Feitosa MZS. A afetividade do agente comunitário de saúde no território: um estudo com os mapas afetivos. Ciênc. Saúde Colet. 2018;23(3):813-22. DOI: https://doi.org/10.1590/1413-81232018233.00292016

36. Alves SGS, Vasconcelos TC, Miranda FAN de, Costa TS, Sobreira MVS. Aproximação à subjetividade de enfermeiros com a vida: afetividade e satisfação em foco. Esc. Anna Nery Rev. Enferm. 2011;15(3):511-7. DOI: https://doi.org/10.1590/S1414-81452011000300010

37. Moraes PA, Bertolozzi MR, Hino P. Percepções sobre necessidades de saúde na atenção básica segundo usuários de um serviço de saúde na atenção básica segundo usuários de um serviço de saúde. Rev. Esc. Enferm. USP. 2011;45(1):19-25. DOI: https://doi.org/10.1590/S0080-62342011000100003

38. Souza KMJ, Duarte LSA, Palha PF, Nogueira JÁ, Villa TCS, Figueiredo DA. Tuberculosis treatment drop out and relations of bonding to the family health team. Rev. Esc. Enferm. USP. 2010;44(4):904-10. DOI: https://doi.org/10.1590/S0080-62342010000400007

39. Silva MBGM, Tonelli ALN, Lacerda MR. Instrumentos do cuidado humanizado de enfermagem: uma reflexão teórica. Cogitare enferm. 2003;8(1):59-64. DOI: https://doi.org/10.5380/ce.v8i1.44969