Health care for children and adolescents with HIV: longitudinality assessment

Atenção à saúde de crianças e adolescentes com HIV: avaliação da longitudinalidade

Cristiane Cardoso de Paula[1]
Stela Maris de Mello Padoin[1]
Clarissa Bohrer da Silva[1]
Raquel Einloft Kleinubing[1]
Tamiris Ferreira[1]

Corresponding author
Cristiane Cardoso de Paula
Faixa de Camobi, Km 09,
97105-900, Santa Maria, RS, Brazil.
cris_depaula1@hotmail.com

Abstract

Objective: To evaluate the presence of Primary Health Care longitudinality from the perception of professionals from the municipalities of children and adolescents with HIV, who were treated in specialized services.

Methods: Cross-sectional study, performed in 25 municipalities of Rio Grande do Sul, with 527 healthcare professionals. A characteristics questionnaire was used, and the Primary Care Assessment Tool - Brazil instrument, professional version. Pearson's Chi-square test and Poisson regression were used.

Results: The longitudinality was satisfactory (p=6.96). Professionals aged less than or equal to 30 years (p=0.01) and professional education (p = 0.03) were associated with high scores. In the Family Health Strategy, sufficient time to attend to clients (p 0.045) was associated with the high score.

Conclusion: The assessment indicated the potential for Primary Health Care to care for children and adolescents with HIV, especially in providing a bond, which is a determinant for the continuity of care.

Resumo

Objetivo: Avaliar a presença do atributo longitudinalidade da Atenção Primária à Saúde, na experiência de profissionais dos municípios de procedência de crianças e adolescentes com HIV, acompanhados em serviço especializado.

Métodos: Estudo transversal realizado em 25 municípios do Rio Grande do Sul com 527 profissionais da saúde. Utilizou-se questionário de caracterização e o instrumento *Primary Care Assessment Tool*-Brasil, versão Profissionais. Foram utilizados Teste Qui-Quadrado de Pearson e Regressão de Poisson.

Resultados: A longitudinalidade apresentou-se satisfatória (p=6,96). Associaram-se ao alto escore: profissional com idade menor ou igual a 30 anos (p=,01); formação profissional clínico geral (p 0,03). Foi associado ao alto escore, na Estratégia de Saúde da Família, o tempo suficiente no atendimento aos usuários (p 0,045).

Conclusão: A avaliação indicou o potencial da Atenção Primária à Saúde para o atendimento das crianças e adolescentes com HIV, especialmente em proporcionar o vínculo, determinante para a continuidade da atenção.

Introduction

Children and adolescents with the Human Immunodeficiency Virus (HIV) present specific demands for their serological condition. They are treated with continuous use medicines to survive, require health education for their family or those responsible for daily care, along with other justifications of their special health needs. Therefore, they need to be permanently monitored by members of the health services tp prevent illness and maintain health,[1] which occurs predominantly in a specialized HIV service. However, articulation of this service with Primary Health Care (PHC) is necessary;[2] successful actions to manage infection in the PHC services of some Brazilian cities were recognized as possibilities for decentralizing sharing of processes and management.[1,3]

The PHC advocates for change in the design of clinical care, which is attribute oriented. These attributes are defined as an inseparable set of structuring elements of the health services system. The essential attributes are: care at the first contact, longitudinality, coordination and completeness. The derived attributes are family and community orientation.[3] From the PHC attributes, the present study focuses on longitudinality, which is conceptualized as the existence of a regular source of care, ability to identify the elective population that should be cared for by the service, in addition to establishing a bond between patients and professionals.[3,4]

The PHC longitudinality assessment is necessary to qualify the health care. Thus, actions such as treatment, assessment of health needs, transference between services, reduction of hospitalizations, and patient satisfaction with the care provided, will contribute to health promotion and disease prevention, considering the relationship of longitudinality in the integration of structural and procedural improvements for the qualification of care.[5]

This study aimed to evaluate the presence of the longitudinality attribute of PHC, according to the experiences of professionals from the municipalities of children and adolescents with HIV, who were treated in specialized services.

Methods

This was quantitative study of transversal design, performed with physicians, nurses and dentists, from March to August of 2014, in 25 cities of Rio Grande do Sul (RS). These cities were listed as having children and adolescents with HIV/AIDS, who were permanently receiving care at the outpatient clinic for pediatric infectious diseases at the Hospital Universitário de Santa Maria (HUSM/RS/Brazil), in 2013.

The Municipal Health Secretariats were contacted by telephone and postal connections, to authorize and access the addresses of the Basic Health Unit (BHU) and family health strategy (FHS). Only one municipality did not agree to participate in the survey. The following inclusion criteria were used: physician (general practitioner, pediatrician or gynecologist), nurse or dentist, working in the PHC services of the 25 cities, including the BHU and FHS. The exclusion criteria were: those on vacation or sick leave during the data collection period. The total population of health professionals in these cities was used, without sample calculation. Among the eligible population of 554 professionals, there were 12 refusals to participate and 15 individuals were not located (after three attempts), totaling 27 losses (4.9%). The population studied constituted 527 professionals. They were contacted in the health services where were working, during their work shift, and invited to respond to the instrument and sign the Terms of Free and Informed Consent form. The research assistants (four master's and five undergraduate nursing students), previously trained by the research coordinator, traveled to the municipalities, using resources from projects contemplated in research grants. The supervision of the field stage was conducted through weekly meetings of the research group, to discuss ease and difficulties.

The instrument used for data collection included professional characteristics with socio-

demographic variables (sex, age); educational variables (education time, graduation); and occupational situation variables (work place, employment status, time working in the service, work shift, another job, position in the current job). In order to evaluate the longitudinality attribute, the professional version of the Primary Care Assessment Tool (PCATool) [6,7] validated in Brazil was administered.[8] The PCATool-Brazil measures the presence and extent of each PHC attribute using an arithmetic mean of the items. On a Likert scale, responses ranged from one to four, with "certainly yes" (value = 4), "probably yes" (value = 3), "probably not" (value = 2), "certainly not "(Value = 1) and" do not know/do not remember "(value = 9). For application of the instrument, the professionals were instructed to respond with a focus on the health care for children and/or adolescents with HIV (even though they did not know the diagnosis of infection of the patients).

The research assistants applied the instrument in person, with an average completion time of 40 minutes. In case of doubts of the participants, the auxiliaries followed the instructions contained in the PCATool manual, which indicates the wording of the items exactly as they are written and, if there is no understanding, the item can be repeated in a timely manner using the parentheses (orientation to the interviewer or, sometimes providing illustrative examples of the character of the item) to explain its meaning.[8]

The analysis was performed in the Statistical Analysis System version 9.3, after duplicate independent typing, using the Epi-info® program, version 7.00. Scores higher than or equal to 6.6 (high score) and lower than 6.6 (low score) were used for score evaluation, according to the instrument manual. Values, which originally ranged from one to four, were transformed into a continuous scale from zero to 10.

Reliability analysis was performed using Cronbach's alpha (values >0.70 were considered consistency indicators). The Kolmogorov-Smirnov Test was used for assessment of the normality of the variables. The categorical variables (sociodemographic and educational characteristics, occupational situation, and the items that compose the longitudinality attribute) were presented using absolute and relative frequencies, and the continuous variables (longitudinality attribute) in averages and standard deviation if symmetrical, and in median and interquartile range when asymmetrical.

To compare the proportions of the dichotomized scores of the attribute between sociodemographic profile, education and occupational situation of the professionals, according to the type of job, the Pearson Chi-Square Test was used. For statistical analyses, the significance level of 5% was adopted. To verify the variables that were associated with the high score, the Poisson regression was used with robust variance. The prevalence ratios (PR) and their respective confidence intervals (95% CI) were estimated. The independent variables associated with the high score with a p value <0.25 were included in the crude and adjusted analysis.

Among the limitations of this study, the instrument used did not include specific peculiarities of the HIV population. The study was approved by the UFSM Research Ethics Committee on the CAAE: 12223312.3.0000.5346. Ethical precepts, as established in Resolution no. 466/2012 were met, and the professionals signed the Terms of Free and Informed Consent form.

Results

Among the 527 health professionals interviewed, 420 (80%) were under 30 years of age, 245 (46%) were physicians, 167 (32%) nurses, and 115 (22%) dentists. Regarding the place of work, 270 (51%) worked in the BHU and 257 (49%) within the FHS.

The longitudinality attribute showed high orientation score for PHC (mean 6.96, standard deviation 1.31, median 6.92, minimum 3.08, maximum 10, Chronbach alpha 0.727).

Table 1 presents the sociodemographic, educational and occupational situation characteristics of

Table 1. Socio-demographic, education and occupational profile according to the high and low evaluation of the longitudinality attribute, by health professionals (n = 527)

Variables	Categories	High score (≥6.6) n(%)	Low score (<6.6) n(%)	p-value*
Sociodemographic				
Age	<30 years	269(51.04)	151(28.65)	0.01
	>30 years	54(10.25)	53(10.06)	
Sex	Female	213(40.42)	126(23.91)	0.33
	Male	110(20.87)	78(14.80)	
Marital status (n=526)	Married	212(40.30)	130(24.71)	0.65
	Single	83(15.78)	52(9.89)	
	Other	27(5.13)	22(4.18)	
Education				
Education	General Clinical	121(22.96)	53(10.06)	0.03
	Gynecologist	23(4.36)	15(2.85)	
	Pediatrician	23(4.36)	10(1.90)	
	Nurse	95(18.03)	72(13.66)	
	Dentist	61(11.57)	54(10.25)	
Years after graduation from undergraduate program (n=526)	<15 years	169(32.13)	105(19.96)	0.89
	>15 years	154(29.28)	98(18.63)	
Graduation	None	83(15.75)	55(10.44)	0.81
	Residency	68(12.90)	36(6.83)	
	Specialization	161(30.55)	105(19.92)	
	Master's degree	11(2.09)	8(1.52)	
Graduation concluded (n=390)	<6 years	129(33.08)	76(19.49)	0.48
	>6 Years	110(28.21)	75(19.23)	
Complementary education	Yes	276(52.37)	169(32.07)	0.42
	No	47(8.92)	35(6.64)	
Occupational				
Employee contract type (n=526)	Private employee	93(17.68)	43(8.17)	0.06
	Civil servant	223(42.40)	153(29.09)	
	Contracted	6(1.14)	8(1.52)	
Years of service (n=526)	<3 years	154(29.28)	113(21.48)	0.09
	>3 years	168(31.94)	91 (17.30)	
Position (n=526)	Yes	52(9.89)	38 (7.22)	0.46
	No	270(51.33)	166(31.56)	
Type of position (n=87)	Director	13(14.77)	14(15.91)	0.17
	Coordinator	38(43.18)	19(21.59)	
	PHC Responsible	1(1.14)	2(2.27)	
Another job	Yes	168(31.88)	107(20.30)	0.92
	No	155(29.41)	97(18.41)	

* Pearson's Chi-Square Test

PHC professionals, according to the evaluation of high and low scores of the longitudinality attribute.

In table 2, the items that compose the longitudinality attribute are presented, which include questions aimed at investigating the interpersonal link between patients and their source of care, dichotomized into high and low scores in the evaluation by health professionals, according to the type of service.

In table 3, the crude and adjusted Poisson regression shows the association of the independent variables with a high score on the PHC, in the health care of children and adolescents with HIV, from the experience of health professionals.

Table 2. Items of the longitudinality attribute, dichotomized into high and low scores (n = 527)

Variables	Basic Health Unit (n=270)			Family Health Strategy (n=257)		
	High score (≥6.6)	Low score (<6.6)	p-value*	High score (≥6.6)	Low score (<6.6)	p-value*
	n(%)	n(%)		n(%)	n(%)	
Carie by the same physician / nurse						
High score	52(19.26)	32(11.85)	0.447	108(42.02)	6(21.79)	0.463
Low score	16(39.26)	80(29.63)		57(22.18)	36(14.01)	
Understanding the questions asked by your patients						
High score	138(51.1)	94(34.81)	0.426	132(51.36)	72(28.02)	0.741
Low score	20(7.41)	18(6.67)		33(12.84)	20(7.78)	
Patients' understanding of what you ask for						
High score	78(28.89)	48(17.78)	0.290	68(26.46)	40(15.56)	0.724
Low score	80(29.63)	64(23.70)		97(37.74)	52(20.23)	
Patients can call and speak with a doctor or nurse who knows them better.						
High score	118(43.70)	76(28.15)	0.219	70(27.24)	36(14.01)	0.607
Low score	40(14.81)	36(13.33)		95(36.96)	56(21.79)	
Enough time with patients to discuss their problems or concerns						
High score	119(44.07)	76(28.15)	0.177	122(47.47)	57(22.18)	0.045
Low score	39(14.44)	36(13.33)		43(16.73)	35(13.62)	
Patients are comfortable telling you their concerns or problems						
High score	91(33.70)	58(21.48)	0.344	70(27.24)	36(14.01)	0.607
Low score	67(24.81)	54(20.00)		95(36.96)	56(21.79)	
Know "very well" the patients of your health service						
High score	68(25.19)	47(17.41)	0.860	68(26.46)	44(17.12)	0.305
Low score	90(33.33)	65(24.07)		97(37.74)	48(18.68)	
Know who lives with each of your patients						
High score	11(4.07)	9(3.33)	0.740	22(8.56)	14(5.45)	0.676
Low score	147(54.44)	103(38.15)		143(55.64)	78(30.35)	
Understand which problems are most important for the patients						
High score	79(29.26)	51(18.89)	0.469	79(30.74)	39(15.18)	0,397
Low score	79(29.26)	61(22.59)		86(33.46)	53(20.62)	
Know the complete medical history of each patient						
High score	31(11.48)	30(11.11)	0.165	20(7.78)	12(4.67)	0,830
Low score	127(47.04)	82(30.37)		145(56.42)	80(31.13)	
Know the job of each patient						
High score	24(8.89)	13(4.81)	0.399	13(5.06)	9(3.50)	0,601
Low score	134(49.63)	99(36.67)		152(59.14)	83(32.30)	
Would know about patients having difficulty getting or paying for medicines						
High score	68(25.19)	44(16.30)	0.537	64(24.90)	26(10.12)	0,089
Low score	90(33.33)	68(25.19)		101(39.30)	66(25.68)	
Know all the medications patients are taking						
High score	49(18.15)	38(14.07)	0.613	44(17.12)	18(7.00)	0,202
Low score	109(40.37)	74(27.41)		121(47.08)	74(28.79)	
Longitudinality score	158(58.52)	112(41.48)	0.005	165(64.20)	92(35.80)	<.0001

*Pearson's Chi-Square Test

Table 3. Crude and adjusted Poisson regression to the independent variables that were associated with high PHC score in the health care of children and adolescents with HIV (n = 527)

Variables	RPb*	CI95%† Min - Max	p-value	RPa‡	CI95%† Min - Max	p-value
Age						
<30 years	1.099	1.025 -1.177	0.008	1.084	1.008-1.167	0.030
>30 years	ref.			ref.		
Education						
General practitioner	1.138	1.003-1.291	0.045	1.106	0.972-1.258	0.127
Nurse	1.144	1.008-1.298	0.038	1.102	0.968-1.254	0.142
Dentist	1.148	1.008-1.307	0.038	1.113	0.976-1.269	0.110
Gynecologist	1.127	0.967-1.313	0.125	1.119	0.962-1.302	0.145
Pediatrician	ref.			ref.		
Type of employee contract						
Civil	1.124	0.935-1.352	0.212	1.114	0.921-1.348	0.265
Private	1.153	0.955-1.391	0.138	1.105	0.912-1.339	0.308
Contracted	ref.			ref.		
Years of service						
<3 years	1.048	0.996-1.104	0.072	1.030	0.973-1.091	0.309
>3 years	ref.			ref.		
Position						
Coordinator	1.237	0.823-1.858	0.306	-	-	-
Director	1.278	0.846-1.930	0.244	-	-	-
PHC responsible	ref.			ref.		

*CPR - Crude Poisson regression; CI 95% - 95% confidence interval; ‡APR - Adjusted Poisson regression by: Age, Education, Employee contract, and Years of Service; ref. - reference value

Discussion

The longitudinality attribute of PHC for children and adolescents with HIV received a high score (6.96). This indicates that the professionals considered obtaining the continuity of caring in this population as an interpersonal relationship with the patients. This attribute also presented high scores in other studies, which, although they did not specifically address the HIV population, obtained similar results from the perspective of health professionals,[9,10] children's caregivers[11,12] and adults.[13]

However, other studies differ from this result according to the caregivers'[14] and professionals' experience,[15] which may be associated with the shortcomings in the dimension of information continuity that should be part of longitudinality in the Brazilian PHC services. This dimension allows for the connection of information between different professionals to conduct the case, both in the clinical relationship, as well as in the knowledge about preferences, values and the context of the individual, to guarantee care.[4]

The completeness of this attribute is essential in the care of children and adolescents, especially in the context of a chronic condition such as HIV infection, which involves daily medication use, and which adds to the impoverishing characteristics of the epidemic. Therefore, as the PHC professionals maintain a relationship with patients over time, they become a regular source of care.[16] The constant contact of professionals with patients presupposes the maintenance of long-lasting bonds, which results in confidence and knowledge of the reality in which they live, aiming decisive actions that reduce the need of specialized services for health demands that can be treated in the PHC.[17]

Regarding the professionals' sociodemographic characteristics, age less than or equal to 30 years was associated with a high score on the longitudinality attribute. This result may be associated with the fact that younger professionals are being educated with an expanded view of health care, justified by curricular change in undergraduate courses. Health education has emphasized professional education, according to the PHC demands. In this sense, programs of the Ministry of Health and Education have contributed to the reorientation of health education, training future professionals for actions with the Unified Health System (UHS).[18] Converging with this result, the Porto Alegre/RS health professionals, with an average age of 43 years, negatively evaluated the attribute.[10]

The general practitioner professional education was associated with a high score on the longitudinality attribute. It is possible to infer that the general practitioner believes in the existence of an interpersonal relationship with his/her patients. This relationship is implicit due to the continuous monitoring performed over time, in the face of multiple episodes of illness, and the development of health promotion, characterized by responsibility on the part of the health professional, and patient confidence.[4]

In contrast to this, although it was not observed in the present research, a study demonstrated that

PHC teams with a graduate degree, such as residency, showed a higher score for the longitudinality attribute.[12]

Regarding the items that comprise the longitudinality attribute, dichotomized into high or low score according to the type of service, a statistically significant association was identified with the high score in the FHS services regarding "enough time for patients to discuss their problems or concerns."

Some aspects of the interpersonal relationship between professionals and patients support longitudinality, as they provide a bond,[16] familiarity,[19,20] trust,[20] respect,[21] and communication from a comprehensive approach.[19] When this relationship is strengthened, a greater commitment is provided, aimed at promoting health, allowing some space for listening and clarification of doubts.[11]

Regarding the time for caring, a large part of the professionals believed that they had enough time to talk about problems and concerns with children and adolescents with HIV in their health services. This tendency is related to the adequate time for the consultation, the available care, the effective communication and established bonds of trust, strengthened by means of the professional's commitment to the individual's health situation.[17] Thus, the concerns of professionals in solving the problems in their territory enables the recognition of the health service as the habitual source of care, which favors the continuity and the individualized service.[22]

In general, the FHS obtained a better evaluation related to the longitudinality attribute when compared to the BHU. This difference in favor of the FHS was also evidenced in studies in the state of Rio Grande do Sul[23] and Paraná.[9] This result suggests that the professionals of these FHS teams perceive a greater linkage of patients with services, and are able to recognize their enrolled population.[9] However, one study indicates that the turnover of professionals working in the FHS of municipalities of RS is detrimental to the performance of the longitudinality attribute, and the effectiveness with the developed actions. Thus, changes are necessary in relation to labor relationships, working conditions, and professional education, aiming to improve the relationship with health units for the performance of continuous health care for patients.[24]

The unprecedented application of this instrument to this population suggests the need for similar assessment that would help to improve health care and public policies. However, the generalization of data should be done with caution, as the instrument is not specific to the HIV population.

Conclusion

According to the professional statements, the results of the longitudinality assessment of the PHC indicated that the items were satisfactory for caring for children and adolescents with HIV. The follow-up by the same professional, using information continuity, produces resolute actions, reducing the need to use specialized care. Although longitudinal care is in professional practice, it will only be possible when it is a priority of the local health organization, as it involves adequate health care for the patient, in addition to the professional establishment in the health service. It is up to the team of professionals and managers to assign priorities in the implementation of actions directed at the needs of children and adolescents with HIV. The PHC service and the specialized service must work together, maintaining PHC as the reference source. Finally, in terms of practical implications, it is necessary to construct and validate a specific instrument for children and adolescents with HIV.

Collaborations

Paula CC and Padoin SMM contributed to the study design, analysis, data interpretation, article writing, critical review of the intellectual content, and final approval of the version to be published. Silva CB and Kleinubing RE contributed to the analysis, data interpretation, article writing, critical review of the intellectual content, and final approval of the version to be published. Ferreira T contributed to the article writing, critical review of the intellectual content, and final approval of the version to be published

References

1. Motta MG, Pedro EN, Neves ET, Issi HB, Ribeiro NR, Wachholz NI, et al. [Child with HIV/AIDS: perception of the antiretroviral treatment]. Rev Gaúcha Enferm. 2012; 33(4):48-55. Portuguese.

2. Palácio MB, Figueiredo MA, Souza LB. [HIV/AIDS care and primary health care: Possibilities of assistance integration]. Psico (Porto Alegre). 2012; 43(3):360-67. Portuguese.

3. Starfield, B. Atenção primária: equilíbrio entre necessidades de saúde, serviços e tecnologia. Organização das Nações Unidas para a Educação, a Ciência e a Cultura. Brasília(DF); UNESCO; 2002.

4. Paula CC, Silva CB, Nazário EG, Ferreira T, Schimith MD, Padoin SM. [Fatores que interferem no atributo longitudinalidade da atenção primária à saúde: revisão integrativa]. Rev Eletr Enferm [Internet]. 2015[cited 2017 Jan 31];17(4). Available from: https://www.fen.ufg.br/revista/v17/n4/pdf/v17n4a20.pdf. Portuguese.

5. Cecílio LC. [Theoretical and conceptual notes on evaluative processes taking the multiple dimensions of healthcare management into account]. Interface (Botucatu). 2011; 15(37): 589-99. Portuguese.

6. Donabedian A. Evaluating the quality of medical care, 1966. Milbank Q. 2005; 83(4):691-729.

7. Cassady CE, Starfield B, Hurtado MP, Berk RA, Nanda JP, Friedenberg LA. Measuring consumer experiences with primary care. Pediatrics. 2000; 105(4 Pt 2):998-1003.

8. Harzheim E, Starfield B, Rajmil L, Álvarez-Dardet C, Steinl AT. [Internal consistency and reliability of Primary Care Assessment Tool (PCATool-Brasil) for child health services]. Cad Saúde Pública. 2016; 22(8):1649-59. Portuguese.

9. Chomatas E, Vigo A, Marty I, Hauser L, Harzheim E. [Evaluation of the presence and extension of the attributes of primary care in Curitiba]. Rev Bras Med Fam Comunidade. 2013; 8(29):294-303. Portuguese.

10. Hauser L, Castro RC, Vigo A, Trindade TG, Gonçalves MR, Stein AT, et al. [Translation, adaptation, validity and reliability of the Instrument for Assessment of Primary Health Care(PCATool) in Brazil: version of health professionals]. Rev Bras Med Fam Comunidade. 2013; 8(29):244-55. Portuguese.

11. Braz JC, Mello DF, David YG, Teixeira SA, Prado AS, Furtado MCC [Longitudinality and comprehensive care of children under one year old: assessment of caretakers]. Medicina (Ribeirão Preto). 2013; 46(4):416-23. Portuguese.

12. Leão CD, Caldeira AP. [Assessment of the association between the qualification of physicians and nurses in primary healthcare and the quality of care]. Ciênc Saúde Coletiva. 2011;16(11):4415-23. Portuguese.

13. Berra S, Hauser L, Audisio Y, Mántaras J, Nicora V, de Oliveira MMC, et al. [Validity and reliability of the Argentine version of the PCAT-AE for the evaluation of primary health care]. Rev Panam Salud Publica. 2013; 33(1):30-9. Spanish.

14. Marques AS, Freitas DA, Leão CD, Oliveira SK, Pereira MM, Caldeira AP. [Primary care and maternal and child health: perceptions of caregivers in a rural 'quilombola' community]. Ciência & Saúde Coletiva. 2014; 19(2):365-71. Portuguese.

15. Vitoria AM, Harzheim e, Takeda SP, Hauser L. [Evaluation of primary health care attributes in Chapecó, Brazil]. Rev Bras Med Fam Comunidade. 2013; 8(29):285-93. Portuguese.

16. Katz DA, McCoy K, Sarrazin MV. Does improved continuity of primary care affect clinician-patient communication in VA? J Gen Intern Med. 2014; 29(2 Supl):682-8.

17. Baratieri T, Mandu EN, Marcon SS. [Longitudinalidad en el trabajo del enfermero: relatos de la experiencia profesional]. Rev Esc Enferm USP; 46(5):1260-7. Portuguese.

18. Silva JG, Lemos SR, Jesus ML, Lobo MF, Alves CG, Sousa MF, et al. [Contribution of the work health education program to university training]. Rev Ciênc Ext . 2016; 12(1):105-13. Portuguese.

19. Schultz K, Delva D, Kerr J. Emotional effects of continuity of care on family physicians and the therapeutic relationship. Can Fam Physician. 2012; 58(2):178-85.

20. Waibel S, Henao D, Aller M-B, Vargas I, Vázquez M-L. What do we know about patients' perceptions of continuity of care? A meta-synthesis of qualitative studies. Int J Qual Health Care. 2012; 24(1):39-48.

21. Lima CA, Oliveira AP, Macedo BF, Dias OV, Costa SM. [Professional-user of family health relationship: perspective of contractualist bioethics]. Rev Bioet. 2014; 22(1):152-60. Portuguese.

22. Arce VA, Sousa MF. [Practices of longitudinality in the Family Health strategy in Distrito Federal, Brazil]. Cad Saúde Coletiva. 2014; 22(1):62-8. Portuguese.

23. Castro RCL, Knauth DR, Harzheim E, Hauser L, Duncan BB. [Quality assessment of primary care by health professionals: a comparison of different types of services]. Cad. Saúde Pública. 2012; 28(9):1772-84. Portuguese.

24. Arantes LJ, Shimizu HE, Merchán-Hamann E. [The benefits and challenges of the family health strategy in brazilian primary health care: a literature review]. Ciênc Saúde Coletiva. 2016; 21(5):1499-1509. Portuguese.