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DEMAND AND USE OF HEALTH SERVICES BY ADOLESCENTS: AN INTEGRATIVE REVIEW

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ABSTRACT

It is an integrative review, whose objective was to analyze the demand and use of health services by adolescents. The research was made with articles published from 2013 to 2018, in the English, Portuguese and Spanish languages, through the BVS and PubMed, using the descriptors: adolescent; access to health services; adolescent health services; patient acceptance of health care and health services. Twelve articles were included in the final sample. The percentage of demand and use of health services varied from 22% to 94%. Among the factors considered, the following variables were directly associated with the demand and use of services: female sex, high schooling of the parents, presenting psychosomatic complaints and some behaviors of health risk. Variables inversely associated: not being able to pay for consultation, race black and yellow and have already consulted with a specialist, incases of primary care services.Actions are needed to encourage adolescents belonging to all social groups to seek health care before the onset of disease symptoms.

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INTRODUCTION

During adolescence, between 10 and 19 years of age, illness is frequent due to preventable and treatable diseases, which consequences can be avoided through health promotion actions (World Health Organization, 2002). One way to promote the health of this public is to provide greater access to health services. Therefore, WHO recommends that these services be equitable, accessible, acceptable, efficient and effective to serve the adolescent public (World Health Organization, 2012). The use of health services exists when there is direct contact with the service, through consultations, hospitalizations and when there is indirect contact, such as conducting exams. For the use to occur, it is necessary the attitude of the individual, who seeks care through their perception of their health and the attitude of the professional who conducts it within the service. Generally, contacts after the first will be influenced by the reception of the health professional within the service (Travassos and Martins., 2004). In 2013, the National Health Survey in Brazil showed that 11.9% of children and adolescents sought health care in the last two weeks prior to the survey, of which 95.7% were able to get care the first time they sought care. For the regions of the country, North and Northeast were the ones that presented the lowest proportions of demand for health care, 10.1% and 13.4% respectively (Stopa *et al*., 2017). It can be noticed that the younger population presents a small percentage of demand for health services, however, almost all of them can get care. In order for adolescents to be effective, it is important to listen to this subject, insert it into their therapeutic project, promote their autonomy, so that they are also responsible for their own health and support the work of the professionals. In basic health care services, where a large part of health problems can be solved, group health education activities are fundamental, as well as individual care with privacy. The health professional

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who works with this public should avoid moralism, control and oppression (Brazil, 2010). It is important that health professionals are committed and services have actions directed to this age group, so that these subjects feel welcomed. This way, the objective of this study was to analyze the demand and use of health services by adolescents and their associated factors, through an integrative review of the literature.

MATERIALS AND METHODS

This is an integrative review of the literature, carried out from September 2018 to January 2019, through the Biblioteca Virtual de Saúde (BVS) and PubMed. Two search strategies were used (Figure 1), the first one using the descriptors indexed by the Medical Subject Headings (MESH) "adolescent", "access to health services" and "adolescent health services" with the Boolean operator AND. In the second strategy, the descriptors of MESH "adolescent", "patient acceptance of health care" and "health services" were used.

The research was carried out in seven stages: (1) identification of the research problem; (2) definition of inclusion and exclusion criteria; (3) choice of descriptors and search in databases; (4) reading of the titles of articles and selection of abstracts; (5) reading the abstracts and selecting the texts to be read in their entirety; (6) reading the articles in full and selecting those that fit the inclusion criteria of the research; (7) data analysis and review presentation. We performed an analysis of the level of evidence from the studies that were included in the final sample, through the classification proposed by the Joanna Briggs Institute. This classification considers as level I: evidence of systematic reviews of randomized clinical trials, evidence from a randomized controlled trial; level II: systematic review of quasi-experimental studies and almost experimental randomized studies; level III: systematic review of cohort studies, cohort study with control group and case-control study; level IV: systematic review of descriptive studies, cross-sectional study, case series and case studies; level V: systematic review of

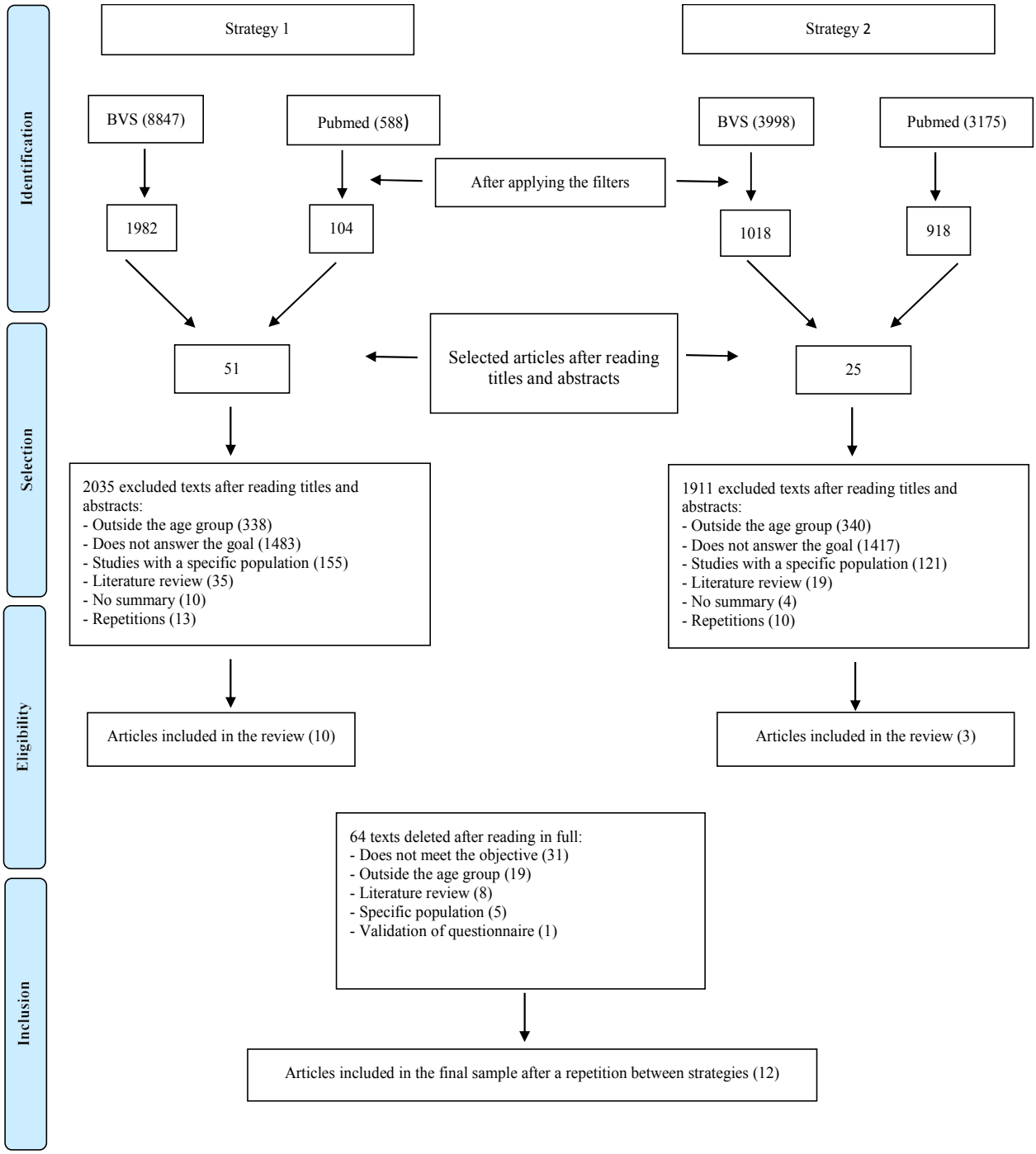

Figure 1. Search strategy used to select articles

expert opinion, expert consensus (The Joanna Briggs Institute, 2018). Inclusion criteria were: work done with a sample of adolescents in the age group of 10 to 19 years and that responded to the objective of the study in the abstract. Exclusion criteria were: literature review articles, non-summary studies, conducted with specific adolescent populations, and questionnaire validation studies. The filters used in the BVS were: year of publication from 2013 to 2018, languages English, Portuguese and Spanish, MEDLINE and LILACS databases, type of publication (article). Those used in PubMed were: year of publication from 2013 to 2018, languages English, Portuguese and Spanish, age group of adolescents and presentation of the abstract. Through the first search strategy, after the application of the filters, 2086 articles were found in the two databases and through the second strategy, 1936 articles. After reading the titles and abstracts, 76 articles were selected to be read in their entirety, of which 12 articles were included in the final review sample.

RESULTS AND DISCUSSION

Of the twelve articles included in this review, two were conducted in the United States, four in Brazil, two in Ethiopia, one in South Africa, one in Finland, one in Kenya and one in Vanuatu - Oceania. As for the language, almost all were published in English and only three in Portuguese. Regarding the type of study, ten were cross-sectional studies with a quantitative approach and two qualitative studies. As for the sample, almost all were composed only by adolescents and in only one study, besides the adolescents' parents were interviewed (Table 1). The types of health services that were research fields of the studies were primary health care services, sexual and reproductive health services, school health services and general health services. As for the percentage of health service demand and utilization by adolescents in the 12 months prior to data collection, the lowest percentage study was conducted in Ethiopia, where only 22% of the sample had used

Table 1. Distribution of articles according to sample category, sample number, author/year, level of scientific evidence and country of study

Sample/ Category	Sample (N)	Author/Year	Level of scientific evidence	Country	Kind of service
Adolescents and parents	500 e 504	Aalsma *et al*., 2016	IV	United States	Primary health care
	1031	Bilal *et al*., 2015	IV	Ethiopia	Sexual and reproductive health
	108647	Oliveira *et al*., 2015	IV	Brazil	Health in general
	10813	Oliveira *et al*., 2018	IV	Brazil	Health in general
	322	Secor-Turner *et al*., 2014	IV	United States	Primary health care
	413	Pereira *et al*., 2013	IV	Brazil	Gynecological
	743	Nunes *et al*., 2015	IV	Brazil	Health in general
Adolescents	690	Dagnew *et al*., 2015	IV	Ethiopia	Health in general
	830	Otwombe *et al*., 2015	IV	South Africa	Health in general
	793	Kekkonen *et al*., 2015	IV	Finland	Primary health care
	472	Owuondo *et al*., 2015	IV	Kenya	Health in general
	341	Kennedy *et al*., 2013	IV	Vanuatu	Sexual and reproductive health

Table 2. Distribution of articles according to the percentage of health service demand and utilization in the last 12 months, author/year, country, type of service

Demand and use of health services by adolescents	Author/Year	Country	Kind of service
94%	Secor-Turner *et al*., 2014	United States	Primary health care
72,4%	Kekkonen *et al*., 2015	Finland	Primary health care
66,9%	Aalsma *et al*., 2016	United States	Primary health care
56,7%	Oliveira *et al*., 2018	Brazil	Health in general
48%	Oliveira *et al*., 2015	Brazil	Health in general
45,4%	Dagnew *et al*., 2015	Ethiopia	Health in general
22%	Bilal *et al*., 2015	Ethiopia	Sexual and reproductive health

Table 3. Distribution of articles according to factors associated with higher demand and use by health services, author (year) and country

Factors associated with increased demand and use of health services	OR	P value	RP	Author (year)	Country
Demographic and socioeconomic					
Female	-	p=0,001	-	Nunes et al., 2015	Brazil
	3,6	-	-	Kekkonen et al., 2015	Finland
High schooling of parents	1,31	-	-	Oliveira et al., 2015	Brazil
	-	-	1,21	Oliveira et al., 2018	Brazil
	2,58	-	-	Aalsma et al., 2016	United States
Studying in private school	1,29	-	-	Oliveira et al., 2015	Brazil
Symptoms of diseases					
Possessing symptoms of diseases	5,2	-	-	Kekkonen et al., 2015	Finland
Chittering in the chest	1,73	-	-	Oliveira et al., 2015	Brazil
	-	-	1,15	Oliveira et al., 2018	Brazil
Toothache	1,33	-	-	Oliveira et al., 2015	Brazil
	-	-	1,07	Oliveira et al., 2018	Brazil
Sexual Behavior					
Condom use	1,29	-	-	Oliveira et al., 2015	Brazil
Have already had sex	3,59	-	-	Secor-Turner et al., 2014	UnitedStates
Risk behaviors					
Smoking	3,52	-	-	Secor-Turner et al., 2014	UnitedStates
Alcohol consumption in Binge	2,04	-	-	Secor-Turner et al., 2014	UnitedStates
	3,2	-	-	Kekkonen et al., 2015	Finland
	-	-	1,10	Oliveira et al., 2018	Brazil
Have parents discussing health	1,57	-	-	Aalsma et al., 2016	UnitedStates

sexual and reproductive status in the last year (Bilal *et al*., 2015) (Table 2). Among the reasons for seeking the service, the search for information on sexual and reproductive health (40%), counseling (21%), obtaining a condom (16%) and treatment of sexually transmitted infections (STIs) (15%) were Bilal *et al*., 2015). Among the factors associated with the greater demand for health services among adolescents, the female sex was identified in two studies conducted in Brazil (Nunes *et al*., 2015; Oliveira *et al*., 2015) (Table 3), as well as in Finland , in which the female sex was positively associated with the use of primary health care services, with an OR of 3.6 (Kekkonen *et al*., 2015). In the study carried out in Pelotas-RS, Brazil, girls used health services more than boys, with a value of p = 0.001 (Nunes *et al*., 2015). Another study carried out with a Brazilian national sample, whose objective was to describe the demand for health services / professionals by schoolchildren, found that 86.1% of the adolescents who reported care at the Basic Health Unit (BHU) were female, moreover, the male sex presented a negative association with an OR of 0.90 (Oliveira *et al*., 2015). However, when considering the use of sexual and reproductive health services, there was a lower percentage of demand for the group of female adolescents, which may be related to greater sexual freedom than male adolescents have, when compared to girls, which makes them feel more comfortable to use this type of health service (Bilal *et al*., 2015).

In Ethiopia, another study showed a 45.4% share of health service use in the last year, which can be considered small when compared to developed countries, and higher than the study that evaluated the use of sexual and reproductive health services (Dagnew *et al*., 2009). This suggests that a specific service for sexual health is less sought by adolescents than a general health service. In Vanuatu, Oceania, a study identified barriers for adolescents to seek sexual and reproductive health services: embarrassment at being underage and the presence of unfriendly health professionals (Kennedy *et al*., 2013). The studies that presented the highest percentages were those performed in the United States, reaching a rate of 94% of adolescents having access to primary health care (Secor-Turner *et al*., 2014). However, it may be noted that in one of these studies, the sample selection process was for convenience, which reduces the degree of heterogeneity of the participants (Secor-Turner *et al*., 2014). An important socio-demographic factor associated with the search for health services among adolescents was race/color and ethnicity. In two studies conducted in Brazil, black and yellow adolescents were less likely to seek health services (Oliveira *et al*., 2015, Oliveira *et al*., 2018). The association between socioeconomic conditions of adolescents and the use of primary health care services was evidenced by Aalsma *et al*. (2016), who found in their results that adolescents whose family could not afford the consultation were less likely to visit a professional (AOR = 0.50). Likewise, in an Oceania country, when interviewing adolescents, they reported that not having the money to pay for the appointment or to pay for transportation to the place was one of the barriers that impeded the search for health services (Kennedy *et al*., 2013). Also on the influence of socioeconomic conditions on the demand and use of health services among adolescents, a study carried out in Brazil, aimed at identifying the demand of female adolescents for gynecological services, found that it was more difficult to schedule consultations among students of state public schools, when compared to students of private schools and federal schools (P = 0.00001) (Pereira *et al*., 2013). In addition, Oliveira *et al*., 2015 also demonstrated that private school students sought more health services (OR = 1.29) (Oliveira *et al*., 2015). Parents' high schooling was also a factor associated with greater use and demand of adolescents for health services. Aalsma *et al*. (2016) showed that adolescents whose parents had a high educational level were 2.58 times more likely to receive health care. Similarly, in Brazil, maternal schooling equal to or greater than 12 years of schooling was associated with a higher demand for health services among adolescents (OR = 1.31), as well as mothers with secondary education (RP = 1, 19) or higher education (RP = 1.21) (Oliveira *et al*., 2015, Oliveira *et al*., 2018). It can be seen that parents' educational attainment positively influences the health demand for their children, perhaps because they have a greater understanding of the importance of preventing the occurrence of health problems in adolescents and encourage them to look for help and routine follow-up. Some studies show that the search for and use of health services among adolescents is associated with the presence of signs and symptoms of diseases. The presence of wheezing and toothache were positively associated with the demand for health services in Brazil (OR = 1.73 and 1.33, respectively) (Oliveira *et al*., 2015), as well as having somatic complaints (OR = 5.2) was associated with greater use of health services among boys in Finland (Kekkonen *et al*., 2015). In the study by Otwombe *et al*. (2015) in South Africa, the main reason for seeking medical care was influenza, almost 8% of adolescents were hospitalized in the 6 months prior to the survey, and the most common reason for hospitalization was some type of injury, followed of tuberculosis or respiratory diseases. In addition, in the United States, one of the studies has shown that there is a lower probability of visits to primary care services because the adolescent believes that he only needs health services when he is ill (OR = 0.29) and when he has visited a professional health specialist has 3.72 times more chance of not visiting a primary care service (Aalsma *et al*., 2016). These results demonstrate the difficulty in preventing the occurrence of health problems due to the culture that it is necessary to treat them when they are already present.

Other studies also demonstrate the association of some health risk behaviors with the greater demand for a health professional to talk about these issues, such as feeling sad or hopeless (OR = 3.64), smoking in the last few 30 days (OR = 3.52), alcohol consumption in Binge in the last 30 days (OR = 2.04) and already had sexual intercourse (OR = 3.59). On the other hand, non-use of the seat belt was negatively associated (OR = 0, 58) (Secor-Turner *et al*., 2014). Kekkonen *et al*. (OR = 0.3) with a greater use of health services, on the other hand, the presence of aggressive behavior among boys (OR = 0.3) was negatively associated. Also on sexual health behaviors, a study in Brazil also showed a positive association between the search for health services and sexual intercourse with preservatives (OR = 1.29) compared to those who had never had sex (Oliveira *et al*., 2015). Probably the feeling of sadness makes the adolescent seek help and advice from a professional, just as smoking and alcohol consumption can lead the adolescent to seek a service to advise him, or if he is experiencing any symptoms of injuries and illnesses that may be caused by such conducts. In addition, sexually active adolescent may seek medical advice for contraceptive methods, obtain contraceptive methods, or seek treatment for STIs. Failure to use the seat belt associated with the lower demand for professionals may suggest that those adolescents who do not care about their safety are the same ones who do

not seek health services and professionals because they are not attentive to their health and well-being. In a study in Kenya, adolescents reported that privacy and confidentiality of services and professionals influence decisions about whether or not to seek health services. The high waiting time and the fact that they are together with adults also inhibit the search for the service (Owuondo *et al*., 2015). Thus, it can be seen that the attitude of the health professional is important so that the adolescent feels comfortable, looks more often for care and has a greater chance of using the service. It was verified that the majority adopted as analysis time, the last 12 months prior to data collection, however, there was a study that questioned adolescents in the last 6 months and another in the last month. In Brazil, the search for services by adolescents was only evaluated in the month prior to the interview, identifying a percentage of 23% (Nunes *et al*., 2015). Another study, conducted in Finland, considered the 6-month period, with 27% of adolescents reported seeking medical care (Otwombe *et al*., 2015). Among the most sought types of service among adolescents in Brazil, the majority sought a UBS once or twice a year (47.5%), followed by private practice (22.2%), hospital (10.2%) and dental practice (7.1%) (Oliveira *et al*., 2015). In Brazil, more specifically in the municipality of Pelotas, the types of services most sought were: private practice (38.0%) followed by UBS (32.2%) and ready-care services (12.9%) (Nunes *et al*., 2015). In this study, the study was carried out in order to evaluate the relationship between the students' access to the Internet and the adolescents who attended the school (Secer-Turner *et al*., 2014, Kekkonen *et al*., Aalsma *et al*., 2016). As reported by self-reported responses, some information was subject to memory bias (Secor-Turner *et al*., 2014; Otwombe *et al*., 2015). Moreover, in cross-sectional studies it is not possible to make causal inferences, only to demonstrate associations.

Conclusion

It was verified that the factors associated with the search and use of health services by adolescents are related to socio-demographic and economic conditions, to the presence of signs and symptoms of diseases and to some behaviors of health risk. There are factors that favour the search and use of health services by adolescents, such as: female gender, high educational level of parents, being a private school student, having some complaint, such as wheezing in the chest and toothache. Some behaviors of health risk were also associated, such as: feeling sad or hopeless, smoking, alcohol consumption in the binge and being sexually active. The factors inversely associated were: race/color black and yellow, unable to pay for the consultation, not being sick, having consulted with a specialist, in the case of primary care services, non-use of seat belts and aggressive behavior. Adolescence is an important period of human growth and development that requires specialized assistance aimed at the maintenance, promotion and prevention of health. Specific actions are required for adolescents to seek and utilize health services.

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