

Factors Influencing School Health in Elementary Schools in Isfahan, Iran: A Qualitative Study

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ABSTRACT

Background: Students' health and future health of the community are related to providing health care in schools and since in every society, different contextual factors affect this matter, the present study aims to recognize the factors influencing the health care elementary students are provided with.

Methods: This qualitative content analysis was performed in 2014 in Isfahan. This study was conducted on school health instructors of elementary schools. Through targeted sampling, 15 health care providers, two mothers and 3 principals from 23 elementary schools were selected. Twenty-two semi-structured interviews were performed. Qualitative data analysis was done using qualitative content analysis.

Results: In this study, 3 concepts were extracted: family umbrella over health (with two sub-categories of 'family's social status and its effect on health' and 'family and health'), functional resources (with two sub-categories of 'opportunity', 'availability of resources for diagnosis') and health components (with two sub-categories of 'culture', 'the value of school health'). These contextual factors must be considered in providing health care for schools.

Conclusions: Consideration of effective contextual factors on providing elementary students with health care can help improve health for this group.

KEYWORDS: School health; Primary schools; Content analysis

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INTRODUCTION

One of the most important indicators of development in countries is the level of health and well-being among their populations¹ which can be related to childhood health. One way to care for the health of this group is to provide health care at schools.² This is because students spend a lot of time at schools³ and schools provide a valuable place to put the target population at a predetermined place and time for providing school health programs.⁴ After families, schools play the most important role in taking account of children's health because when a kid starts elementary school, he/she experiences a transmission from family environment to the social environment⁵ and encounters health threatening risks, many friends and different games. Also, along with learning how to read and write, he/she would learn new information, attitudes and behaviors.⁶ Providing school health care would lead to a better control of health problems and an increase in health improvement programs.² But, these cares include a series of complicated interventions that would be provided with a complicated background⁷ and in every society, these effective factors of providing school health may be different and could affect their provision pace and effectiveness. Moreover, complexity of cultural, social and economic environment of schools and families could affect the operation of caregivers and hence students' health.⁸ The society that has surrounded the school as a social environment could affect health care provision in any way.⁹ However, since these meddler factors would not be usually taken into consideration, students' health problems could not be solved;¹⁰ hence, schools' great possibility to make permanent and steady changes in health behaviors would be ignored.⁹ However, with accurate programming and considering factors influencing health care provision, many preventable infectious and chronic diseases could be reduced and therefore the rate of sickness and death among children would decline accordingly.⁸ As such, considering the importance of school health care and the factors

affecting these cares, the present study aims to probe into the factors influencing school health in elementary schools in Isfahan.

MATERIAL AND METHODS

Research Design and Setting

The present study is extracted from a PhD thesis that aimed to determine the effective factors in providing health care for elementary schools. This qualitative study was conducted by conventional content analysis method. Content analysis study is not merely a qualitative study but is a simple and appropriate method for analyzing a great amount of qualitative data.¹¹ This study lasted for 10 months from February to November of 2014. The study was conducted in elementary schools of Isfahan. At these schools health care was provided for students by health instructors most of whom did not have health-related academic degrees. Their method of providing health care was controlled by school health authorities of health center of the province and the province's education department.

Participants and Sampling Procedure

Participants of the present study were students' families, school principals, school health authorities and school health instructors. Based on the number of students, school health instructors worked at two or three schools. For this study, sampling was targeted and the researcher tried to find participants with various demographic characteristics and good experiences related to the research questions. The inclusion criteria for all the participants were their willingness to participate in the study and share their experiences. For health instructors, in addition to that, at least 1 year experience of working at elementary schools was needed as well.

Data Collection

For gathering the required data, having received permission for entering the schools and explaining the aim and benefits of the

study to school authorities and participants, the researchers gathered data through semi-structured interviews. After taking informed consent from the participants for sharing their experiences, the corresponding researcher coordinated the place and time of the interviews with participants. Twenty interviews were conducted at schools in the morning and afternoon and two were conducted at health center and education department in the morning. Interviews lasted from 45 to 60 minutes and after taking permission from the participants, all the interviews were recorded. During interviews, participants were asked to share their experiences regarding the questions they were asked. The interview questions were designed by two nursing professors and a PhD student of nursing. Examples are: What factors affect the provision of school health care? How do these factors affect health care provision? What factors facilitate the provision of health care at schools? The next questions were designed based on the answers the participants offered.

Data Analysis

For analyzing the gathered data, first the recorded interviews were listened over and over and then they were written down word by word. Then after reading the written texts for 3 or 4 times, data was analyzed by the research team inductively according to the method of Lundman and Graneheim.¹¹ First, all the important lines were underlined and turned into semantic units. Extracted codes were reviewed and compared a few times based on their similarities and dissimilarities and similar codes were put in one category. The process of summarizing the data and merging the categories continued until three main themes were obtained. For data management, MAXQD 10 software was used.

The accuracy and reliability of the study (credibility, confirmability, dependability and transferability) were assessed by Guba and Lincoln criteria.¹² In order to determine credibility, the researcher tried to make an

appropriate relation with participants and provide an appropriate environment for interviews. For dependability, the opinions of the research team and expert colleagues were used for data analysis. Also, the codes were reviewed by the participants too. To increase confirmability, the researchers put aside their previous beliefs and avoided poor personal judgments. In participant selection, the researchers tried to select participants with various demographic characteristics and from different schools with the goal to increase transferability.

Ethical Consideration

Prior to the study, the aim and benefits of the study were explained to all the participants and each signed a written informed consent form. They were also assured that all of their interviews would remain confidential and would safely be kept by the researcher. For the present study, an ethics code by number (1394,125) was received from the ethics committee of Kerman University of Medical Sciences.

RESULTS

Participants were 15 health care providers (13 females and 2 males) of schools and were settled in one or two schools including two mothers, two persons responsible for school health care and one school principal (Table 1).

Final results of the study were categorized into three main groups and their sub-categories: 1- family umbrella over health (family's social status and its effect on students' health, family and health), functional resources (opportunity, availability of resources for diagnosis) and health components (culture, the value of school health) which indicated the factors influencing the provision of school health care.

Family Umbrella Over Health

Family's Social Status and Its Effect on Health

Results showed that social status of families is an important factor influencing

Table 1: Characteristics of participants

Participant no.	Position	Sex	Age	Marital status	Field of study	Job experience	Type of school
1	school health instructors	Female	42	Married	Biology	5 years	General
2	school health instructors	Female	34	Married	Empirical sciences	4 years	Private
3	school health instructors	Female	28	Married	School health	6 years	General
4	school health instructors	Female	40	Married	Biology	4 years	General
5	school health instructors	Female	32	Single	School health	8 years	General
6	school health instructors	Female	36	Married	Biology	5 years	General
7	school health instructors	Female	38	Single	Biology	3 years	Public
8	school health instructors	Male	41	Married	Empirical sciences	4 years	Private
9	school health instructors	Female	29	Married	School health	6 years	General
10	school health instructors	Female	38	Divorced	Empirical sciences	2 years	General
11	school health instructors	Female	27	Single	Empirical sciences	6 years	Private
12	Mother	Female	41	Married	-	-	General
13	school health instructors	Female	41	Married	Biology	10 years	General
14	school health instructors	Female	35	Married	Biology	7 years	Private
15	school health instructors	Male	39	Married	Empirical sciences	8 years	General
16	school health instructors	female	29	Single	Biology	4 years	General
17	Mother	Female	28	Married	-	-	private
18	school health authorities	Male	48	Married	Master of educational sciences	26 years	-
19	school health authorities	Female	32	Single	responsible for school health care	6 years	-
20	School principal	Male	46	Married	Bachelor of literature	18 years	-

students' health. Social status would affect parents' efforts toward solving students' health problems and would take health recommendations from school caregivers into consideration.

In this regard, participant no. 10 mentioned: "students must receive trainings about their dental hygiene and they must be visited by doctors regularly; they must be referred to dentists. But due to its high cost, parents

usually would not take their kids to dentists."

Parents' educational level is another influential factor in the health of family members. Parents with higher educational levels would gather more information about health and transfer such information to other family members, especially their children; therefore, health trainings provided at schools by caregivers would become more effective. In this regard, participant no. 11 said:

“Parents’ educational level, especially mothers’ educational level is very significant. Children whose mothers have higher education are usually more eager about health subjects and they would transfer such information to their kids. I was previously working at ... school, mothers there had high educational levels so children had good information too and training them was easy. But now at this school I must teach basic information because their educational levels are low. So it is all about parents, especially mothers”

Family and Health

According to the participants, students’ domestic problems affect their health conditions. For example, participant no. 6 noted:

“I have spent my entire career at deprived areas. Their nutrition condition was poor and there were so many shattered families with divorced and addicted or imprisoned fathers. We had to deal with their kids at school. Students had so many problems because of their families. They fought with each other, they were aggressive and had a lot of nutritional problems and it seemed that no one cared about them.”

Results of this study showed that family had a great effect on students’ health. Parents pay more attention to their children nowadays and taking care of health of the only children and boys seems to have increased. In this regard, participant no. 3 put:

“We must work with parents to solve mental problems of students. The reason is that most of their mental problems are rooted in their families. Their nutritional problems start in their families. They may either have economic problems or do not know what to give to their children. So families have a great effect on the health of students.”

About paying more attention to only children participant no. 2 expressed: *“being the only child would give parents more time and make their child’s health more important to them. And this valuation would help improve students’ health”*.

Functional Resources

Opportunity

According to participants, students at school as a small social environment would interact with each other and it would become easier to solve their mental, psychological and behavioral problems through these interactions. So school is considered as an appropriate therapeutic environment. In this sense, participant no. 4 proposed:

“School is a place where students learn social interactions and if they have any problem in this regard or if they have mental-psychological issues like low self-esteem or unsociability, we can easily make a plan and try to solve the students’ problems.”

Another factor that could be considered as an opportunity for school health providers is that students trust them fast, which makes it easier for them to provide them with health care. For example, participant no. 7 mentioned:

“The good thing about elementary students is that they listen to everything we tell them. It is because children this age listen to their teachers and trust them fast.”

Students’ acceptability and obedience of their teachers would facilitate care provision and make learning more effective. In some cases, elementary school students even had better obedience of their teachers than their parents. Therefore, this could be really helpful in changing students’ health behaviors. In this vein, participant no. 18 proposed:

“There is also another thing. Students listen to their teachers and principals and so what we want to teach them would become more effective. This can be a more important factor than their parents and in this way it would be helpful in care provision.”

Another thing that would facilitate care provision for school-age children according to the participants is their accumulation in one place at the same time. In this regard, participant no. 19 mentioned:

“Thirdly it is possible to reach them in whole. That is, we would be able to reach them easier this way. All the school-age children are gathered at the same place at

the same time. So as a factor it would make it easier to provide health care for them."

Availability of Resources for Diagnosis

Also, according to the participants, students' interactions with each other and long-term communication between school staff and students have made schools an appropriate place for diagnosing their problems. In this regard, a student's mother, participant no. 12, said:

"When we visit a consultant outside school, they judge according to what we tell them, but at school they see children's functionality for themselves and make a diagnosis based on that. They could follow up and teach. They could make a better diagnosis if they communicate with us too."

Participant no. 10 also said: *"I think school is an appropriate place for screening children so as to diagnose their problems."*

Parents' cooperation in diagnosing students' problems is another point that could influence the provision of health care for students and, by diagnosing students' problems, the ground would be prepared for providing health care. In this regard, participant no. 6 suggested:

"Usually mothers would cooperate with us regarding their child's sickness. If a child has a problem at the start of the school year, his mother would inform us and even if they had to take any drugs, they would let us know. And if a child comes to school sick, his mother would call and notify us about the problem."

Students' looks and behaviors at school could also be helpful in diagnosing their problems. In this regard, participant no. 9 put:

"Many of children's problems could be diagnosed by their reactions. Many of them are obvious from their looks. When I worked at ... school we had a student who obviously had a heart problem. And he was under the treatment and visited doctor regularly. He was always pale and had shortness of breath when he ran."

Health Components Culture

Family's and society's culture is also an

influential factor in the process of providing school health care. Regarding the effect of culture on family's effort toward students' problems, participant no. 13 mentioned:

"When we invite mothers for students' health care meetings, their presence depends on their culture; a mother might come, another might not. Family's culture would also affect the follow up of a child's health problem. For example, we had a mother whom we constantly recommended to take her daughter to a psychiatrist for her unsociability, but she always kept declining and saying that you are just pinning problems on my daughter."

Family's culture could also affect children's health. Participant no. 18 has said:

"At schools of Tiran-va-Karvand, when a daughter gets her period her mother slaps her and then sends her to the school so that no one would realize she is having her period (they think looking pale might keep proposers away). You can see how cultural issues would affect families' attitudes. Or they would not buy glasses for their daughters and after they are married they can wear glasses."

The Value of School Health

According to the participants, the first priority of our educational system is students' learning and the priority of health is relatively low in this system. But our participants believed that if students' health would be ignored, other abilities including learning would be affected as well. On the other hand, providing school health by caregivers does not have a great importance and stopping some students' health programs in facing problems by the authorities indicates their ignorance toward school health.

Regarding the place of health school programs, a school principal, participant no. 20, said:

"We must have consultants, physicians or at least we must have a nurse at school and this is necessary. They propose public health but they ignore it themselves. Well here is a public place too, isn't it? This place is a part of society too. But they do not care about

health. A person who is not healthy cannot do anything or study. This must be top priority but other things have become the priority.”

Participant no. 9 also talked about less attention toward students' health than their education:

“We do not pay any attention to health which is a basic matter. The thing that is of great importance at school is students' learning. But if students are not healthy, their learning would be affected too.”

One of the principals, participant no. 19, talked about not applying some school health care programs:

“But unfortunately many programs that are sent to schools are stopped behind classrooms. I mean they were good ideas but they were not applied due to some problems. But I believe that in practice more attention should be paid to school health.”

According to the participants' statements, although providing school health care has a special importance, and not only affects childhood health but also health during adulthood, in programming and in practice no significant attention is paid to it and this valuation would affect the method of care provision. Participant no. 20 made mention of the effect of health in childhood on health in adulthood:

“We must feel sorry for those boys and girls who are supposed to suffer from diabetes and then start a family. They do not know where cancer comes from, whether it is bought or not. These trainings and then controls could help prevent it. If we work right at schools, we could prevent many adulthood diseases.”

DISCUSSION

Results of this study showed that students who have parents with higher educational levels have higher health literacy and better health conditions. Economic-social condition of families, especially parents' educational level played an important and effective role in students' health.¹³ Parents with higher education perform better in terms of health care and play

a more effective role in finding health behaviors for other members of the families and children.¹⁴ Students' parents hold themselves responsible for teaching health tips to their own kids.¹⁵ Thus, parents with higher educational levels are better able to keep the health of the family system.¹⁶

On the other hand, the present study showed that families with lower economic conditions, as compared to other families, perform weaker in following up their children's health and referring them to physicians. Studies have also revealed that economic-social condition of families influences parents' role in families and providing health care. Studies conducted on elementary children revealed that families with different economic-social conditions give different reports about the mental-psychological health of their children and so their efforts toward referring their children to physicians are different.¹⁶ Results are inconsistent with those of the present study. Also, the present study mentioned costliness of mental-psychological consultations and its effect on economic condition of families and families' follow up. In line with these results, studies revealed that following mental-psychological problems of children and teenagers is costly and could place an economic pressure on families.¹⁷ On the other hand, family's economic condition and their understanding of the problem would affect their follow-up and handling their children's mental and psychological problems.¹⁸ Therefore, since ethnic, religious, racial, cultural and economic conditions of families affect children's health, it is necessary to program school health care based on these important characteristics.¹⁹

Furthermore, the results of the present study showed that students' domestic problems would affect their health conditions. Other studies have also mentioned that family as a social unit has a direct effect on each member's health²⁰ and children's health would greatly be affected by their domestic conditions.^{3,21} Even students' understanding of their domestic conditions would affect their adjustment to school and their health,²⁰ which

confirms the results of the present study.

Based on the results of the present study, students with divorced or addicted parents have more behavioral and mental-psychological problems. In line with these results, in one study teachers reported that mental-psychological and behavioral problems are more prevalent among students with divorced parents.²²

Moreover, based on the present study, parents of only children or parents of boys or younger parents provide better care for their children than other parents. Child's age and sex, parents' ethnicity, age, anxiety and depression and social condition, number of family members and its functionality are related to the rate of using mental-psychological consultations for their children.²³

Results of the present study showed that schools provide an appropriate opportunity for treatment and solving health, mental, psychological and behavioral problems. Weight gaining problems could easily be addressed using nutritional trainings, promoting healthy eating, teaching physical activities and health improvement programs.²⁴

Confirming the present findings, school is a place where different aspects of students' health could be enhanced.²⁵ Therefore, it is necessary to pay special attention to schools' abilities in solving students' mental, psychological and health problems.²⁶

Elementary students' trust in their teachers and caregivers and their obedience from them is considered as another opportunity for providing school health care in this study. Other studies have also demonstrated that students' trust in teachers and caregivers would facilitate transmission of health information, so adjustment to health values would increase and by increasing social control over deviant behaviors, healthy behaviors would improve too.²⁷⁻²⁹

Besides, gathering students at school is mentioned as another opportunity in the present study. Students' gathering at school was a good opportunity to provide health care for risky individuals who mentioned

that at schools it would be easier to act toward health training and improvement of students.³⁰ School is an important place for teaching health tips because a large group of children get together at the same place at the same time; therefore, it is necessary for the authorities to make accurate plans considering this matter in order to improve the health and learning of students;⁸ this is in agreement with the results of the present study.

Results of the present study revealed that school environment provides a place where students' problems, especially behavioral and mental-psychological ones, could be easily diagnosed. At this place, students who are unsociable do not communicate with others, and aggressive students can be easily distinguished. Other studies have also mentioned that students' health problems could be diagnosed,³¹ and even in this way family's health problems could be diagnosed as well.³²

Other than these, it was found that families are required to cooperate with school caregivers to diagnose their children's health problems. In line with the results of this study, a qualitative study about the participation of families in elementary students' health found that parents could be really helpful in detecting their children's problems especially those that cannot be observed at school, like sleep problems or inappropriate behaviors at home.³³

Based on the results of the present study, society's and family's culture influence health and health actions and family's cooperation with school toward their children's health. Other studies have also mentioned that students' cultural and racial differences play a key role in the provision of school health care by the Education Department.⁴ Therefore, in providing health care, values and attitudes related to health must be recognized and appropriate actions toward negative attitudes must be taken.¹⁸ By studying 539 students and their families, it was revealed that families' efforts toward finding their children's problems and using health services are related to their culture, ethnicity and social

conditions,³⁴ which confirms the results of the present study. On the other hand, cultural and national differences could affect the provision of health care for students by teachers.³⁵

The results of the present study also showed that school health has a significant role in students' and families' health but in practice schools' priority is students' learning and they do not pay due attention to students' health. Results of interviews with 14 school teachers showed that providing school health care has a fundamental role in keeping and improving students' health.³⁶ But in practice there is no particular focus on the school health programs and each school follows its own routines for providing health care³⁷ and there is not enough international attention in this regard;⁹ in fact, necessary interventions for students with special needs have not occurred.²⁵

On the other hand, at schools all the attention is paid to teaching and learning of the curriculum. This is while, it is necessary to pay the same amount of attention to students' health, and some models must be designed for paying simultaneous attention to students' education and health.³⁸ In this regard, teachers have also mentioned that the amount of curriculum for them is too heavy and considering their short period of time, their first priority is teaching the curriculum without taking account of health interventions,³⁹ which confirm the results of the present study.

Results of the present study regarding the value of school health illustrated that providing school health care not only improves students' health but also guarantees their health during adulthood. Edelman et al. in this regard mentioned that healthy behaviors during childhood would affect the health condition during adulthood and it is necessary to form many healthy behaviors like healthy eating and not consuming alcoholic beverages from childhood, because it is hard, if not impossible, to change behaviors during adulthood. In this way, school is important as a place where health trainings could be

performed and healthy behaviors could be corrected.⁴⁰

Weakness and Strengths

The study suffers from a number of limitations. This qualitative study explored the factors influencing school health in only elementary schools of Isfahan. Therefore, the transferability of the findings from qualitative work should be considered with caution. This study revealed that along with school related factors, familial and social factors play important roles as well.

CONCLUSION

The group of elementary school students is one of the social groups who spend a lot of their time in an environment called school and it is necessary to pay sufficient attention to its health and providing health care for it, but the complexity of factors influencing their health and their varied health problems must be considered as factors influencing the provision of health care for elementary students and could help improve the health of this group.

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REFERENCES

- 1 Das P, Basu M, Dhar G, et al. Nutritional status and morbidity pattern of government primary school children in north Kolkata of West Bengal, India. *South East Asia Journal of Public Health*. 2012;2:13-7.
- 2 Seigart D, Dietsch E, Parent M. Barriers to providing school-based health care: International case comparisons. *Collegian*. 2013;20:43-50.
- 3 Mäenpää T, Åstedt-Kurki P. Cooperation

- between Finnish primary school nurses and pupils' parents. *International Nursing Review*. 2008;55:219-26.
- 4 Fiscella K, Kitzman H. Disparities in academic achievement and health: the intersection of child education and health policy. *Pediatrics*. 2009;123:1073-80.
 - 5 Bonell C, Parry W, Wells H, et al. The effects of the school environment on student health: a systematic review of multi-level studies. *Health & Place*. 2013;21:180-91.
 - 6 Gibson EJ, Santelli JS, Minguez M, et al. Measuring School Health Center Impact on Access to and Quality of Primary Care. *Journal of Adolescent Health*. 2013;53:699-705.
 - 7 Gugglberger L, Inchley J. Phases of health promotion implementation into the Scottish school system. *Health Promotion International*. 2014;29:256-66.
 - 8 John-Akinola YO, Nic Gabhainn S, Weare K. Socio-ecological school environments and children's health and wellbeing outcomes. *Health Education*. 2015;115:420-34.
 - 9 Benzi H, Monse B, Belizario V Jr, et al. Public health in action: effective school health needs renewed international attention. *Global Health Action*. 2012;5.
 - 10 Beaglehole R, Bonita R. Global public health: a scorecard. *The Lancet*. 2008;372:1988-96.
 - 11 Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*. 2004;24:105-12.
 - 12 Guba EG, Lincoln YS. *Fourth generation evaluation*. UK: Sage; 1989.
 - 13 Konu AI, Lintonen TP, Rimpelä MK. Factors associated with schoolchildren's general subjective well-being. *Health Education Research*. 2002;17:155-65.
 - 14 Parikka S, Mäki P, Levälähti E, et al. Associations between parental BMI, socioeconomic factors, family structure and overweight in Finnish children: a path model approach. *BMC Public Health*. 2015;15:271.
 - 15 Sormunen M, Tossavainen K, Turunen H. Parental perceptions of the roles of home and school in health education for elementary school children in Finland. *Health Promotion International*. 2012;28:244-56.
 - 16 Ghandour RM, Kogan MD, Blumberg SJ, et al. Mental health conditions among school-aged children: geographic and sociodemographic patterns in prevalence and treatment. *Journal of Developmental & Behavioral Pediatrics*. 2012;33:42-54.
 - 17 D'Amico F, Knapp M, Beecham J, et al. Use of services and associated costs for young adults with childhood hyperactivity/conduct problems: 20-year follow-up. *The British Journal of Psychiatry*. 2014;204:441-7.
 - 18 Larson J, dos Reis S, Stewart M, et al. Barriers to mental health care for urban, lower income families referred from pediatric primary care. *Administration and Policy in Mental Health and Mental Health Services Research*. 2013;40:159-67.
 - 19 Jansen PW, Verlinden M, Dommisse-van Berkel A, et al. Prevalence of bullying and victimization among children in early elementary school: Do family and school neighbourhood socioeconomic status matter? *BMC Public Health*. 2012;12:494.
 - 20 Mäenpää T, Paavilainen E, Åstedt-Kurki P. Cooperation with school nurses described by Finnish sixth graders. *International Journal of Nursing Practice*. 2007;13:304-9.
 - 21 Bomar PJ. Introduction to family health nursing and promoting family health: foundations of nursing care of families in family health promotion. In: Bomar PJ, editors. *Promoting health in families: applying family research and theory to nursing practice*. 3rd ed. Philadelphia (PA/ USA): Saunders; 2004. P. 3-37.
 - 22 Weaver JM, Schofield TJ. Mediation and moderation of divorce effects on children's behavior problems. *Journal of*

- Family Psychology. 2015;29:39-48.
- 23 Knapp M, Snell T, Healey A, et al. How do child and adolescent mental health problems influence public sector costs? Interindividual variations in a nationally representative British sample. *Journal of Child Psychology and Psychiatry*. 2015;56:667-76.
 - 24 Snelling AM, Belson SI, Watts E, et al. Translating school health research to policy. School outcomes related to the health environment and changes in mathematics achievement. *Appetite*. 2015;93:91-5.
 - 25 The Prime Minister's Chief Science Advisor. Improving the Transition: Reducing social and psychological morbidity during adolescence. New Zealand: The Prime Minister's Science Advisory Committee; 2011.
 - 26 Dudley DA, Winslade MJ, Wright BJ, et al. Rationale and study protocol to evaluate the SunSmart policy intervention: a cluster randomised controlled trial of a primary school-based health promotion program. *BMC Public Health*. 2015;15:42.
 - 27 Subramanian S, Kim DJ, Kawachi I. Social trust and self-rated health in US communities: a multilevel analysis. *Journal of Urban Health*. 2002;79:S21-34.
 - 28 Takakura M. Does social trust at school affect students' smoking and drinking behavior in Japan? *Social Science & Medicine*. 2011;72:299-306.
 - 29 Kawachi I, Subramanian SV, Kim D. Social capital and health-related behaviors. In: Lindström M, editors. *Social Capital and Health*. New York: Springer; 2008. p. 215-38.
 - 30 Vinciullo FM, Bradley BJ. A correlational study of the relationship between a coordinated school health program and school achievement: a case for school health. *The Journal of School Nursing*. 2009;25:453-65.
 - 31 Moreno G, Johnson-Shelton D, Boles S. Prevalence and prediction of overweight and obesity among elementary school students. *Journal of School Health*. 2013;83:157-63.
 - 32 Ruglis J, Freudenberg N. Toward a healthy high schools movement: strategies for mobilizing public health for educational reform. *American Journal of Public Health*. 2010;100:1565-71.
 - 33 Mäenpää T, Paavilainen E, Åstedt-Kurki P. Family-school nurse partnership in primary school health care. *Scandinavian Journal of Caring Sciences*. 2013;27:195-202.
 - 34 Stormshak EA, Connell AM, Véronneau MH, et al. An ecological approach to promoting early adolescent mental health and social adaptation: Family-centered intervention in public middle schools. *Child Development*. 2011;82:209-25.
 - 35 Curtis DF, Pisecco S, Hamilton RJ, Moore DW. Teacher perceptions of classroom interventions for children with ADHD: A cross-cultural comparison of teachers in the United States and New Zealand. *School Psychology Quarterly*. 2006;21:171-96.
 - 36 Jackson-Howard CD. Teachers' Perceptions of Multimodal Literacies in Middle School Health Literacy Programs [Thesis]. US: Walden University; 2015.
 - 37 Carter SM, Rychetnik L, Lloyd B, et al. Evidence, ethics, and values: a framework for health promotion. *American Journal of Public Health*. 2011;101:465-72.
 - 38 St Leger L, Nutbeam D. A model for mapping linkages between health and education agencies to improve school health. *Journal of School Health*. 2000;70:45-50.
 - 39 Brough CJ. Implementing the democratic principles and practices of student-centred curriculum integration in primary schools. *Curriculum Journal*. 2012;23:345-69.
 - 40 Edelman CL, Mandle CL, Kudzma EC. *Health promotion throughout the life span*. Netherlands: Elsevier Health Sciences; 2013.