Article

Avoidance and Delay of Medical Care in the Young: An Interdisciplinary Mixed-methods Study

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Abstract

Prompt and appropriate health-seeking behaviour among young people is a public health priority worldwide. However, data indicate that non-health-seeking behaviour is common among young adults who are particularly likely to avoid and delay medical care. Our study investigates this phenomenon through an interdisciplinary mixed-methods approach. Quantitative and qualitative data are presented from university students from 11 higher education institutions in the city of Bordeaux, France, for a total of 16 individual interviews and a questionnaire survey of 126 students. Results show that main reasons for non-health-seeking behaviour among students are: time constraints, lack of information on available health services and economic problems. The transitional period of university studies is a further justification of students' difficulty in managing their medical care. Providing a clear picture of avoidance and delay of medical care (ADMC) and attached reasons was intended to explore strategies for promoting health-seeking behaviour in university students.

Keywords
Youth transition, mixed-methods, young people, education, parents

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Introduction

There is a growing literature describing health-seeking behaviour in general population as well as in specific population groups, ranging from chronically ill patients to vulnerable people in developing countries (Shaikh and Hatcher, 2005). Health-seeking behaviour can be measured and explored through the collection of data on medical consultations, hospitalizations, treatments purchase, health records and *ad hoc* scales and questionnaires (Afolabi et al., 2013). Models and theories have been developed to explain health-seeking behaviour, such as the Lauver's Theory of Care-Seeking Behaviour (Lauver, 1992) or the Behavioural Model of Health Services Use (Aday et al., 1999; Phillips et al., 1998).

On the contrary, the absence of any health-seeking behaviour is an intangible hardly measurable non-behaviour. The term 'non-health-seeking behaviour' is not an unambiguous or well-determined concept relating to a single theory or discipline (Lund-Nielsen et al., 2011). Therefore, a clear and universally agreed upon definition of non-health-seeking behaviour has not been provided, yet (Després et al., 2011; Scott and Walter, 2010). Previous studies have investigated some aspects of this multidimensional concept, like for instance, the non-adherence with treatment regimens (Moore et al., 2004), or the total lack of access to the health care system (Asch et al., 1998), or the non-uptake of one's health rights (Erus et al., 2015). In an attempt to add some insights into the exploration of non-health-seeking behaviour, in this article we have investigated the phenomenon of 'avoidance and delay of medical care' (ADMC), defined as the attitude of an individual (i) to avoid or delay a consultation with any health professional, from general practitioners (GPs) to specialists, or (ii) to go without treatment/complementary medical exams, or (iii) not to access any health service, that is, any service dealing with the diagnosis and treatment of disease, or the promotion, conservation and restoration of health (World Health Organization [WHO], 2008), notwithstanding the necessity to establish and maintain a healthy physical and mental state (Cornally and McCarthy, 2011; Taber et al., 2015; WHO, 1995). In this article, medical care encompasses the diagnosis, treatment and prevention of all types of diseases, injuries and other physical and mental impairments, from mild to severe, as well as the promotion of positive physical and mental health (Donabedian, 2005).

To date, research has identified different individual and societal factors which are supposed to explain ADMC (Andersen, 1995), but factual data are scarce. Existing information come from disparate sources using either qualitative (focus groups and face-to-face interviews) (Després et al., 2011) or quantitative (paper questionnaires) methods (Byrne, 2008) in clinical populations, leaving this non-behaviour mostly unexplored in the general population.

Especially in young people and particularly in university students, ADMC is an important phenomenon to explore. Students are considered as a population at high risk for ADMC (Clifton and Hervish, 2013; Furlong, 2012), whose consequences could be, in the short term, the loss of working days and productivity on the academic workforce (e.g., university drop-outs) and, in the long term, significant costs related to increased morbidity and mortality later in life (University of Minnesota, 2007). To the best of our knowledge, students' ADMC has been slightly investigated. The few existing reports have mainly tried to identify the reasons for ADMC in students limiting them to the sole economic reason (emeVia, 2015), without considering other sociocultural and demographic factors representing a barrier to health-seeking behaviour (Carrillo et al., 2011). For instance, an important factor influencing students' ADMC is the role of their family (mainly parents) whose proactive and protective approach may have a strong impact on the pathways to care of young people. Furthermore, young adults often report disinterest in their medical care self-management since they feel healthy and not in need of assistance (Vial, 2016). More systematic studies are then necessary to explore the ADMC of students.

The purpose of this study was to describe the experience of ADMC in university students of the city of Bordeaux, France, and identify the main reasons for non-health-seeking behaviour in this population. Providing a clear picture of ADMC and attached reasons was intended to explore strategies for promoting health-seeking behaviour in university students, thus enhancing theoretical and practical advancement in this area of research.

The Health and Well-being of Young People and Students in France

Health status is a major factor affecting ADMC: health-seeking behaviour is evidently influenced by the presence of an illness and the detection of its symptoms (Scott and Walter, 2010). Compared to other population groups, young people are generally considered as a healthy population and wrongly thought as less exposed to illnesses. It is actually during the transition from adolescence to young adulthood that many risk factors appear and many health habits, either good or bad, become anchored and persist into adulthood (Wrench et al., 2013).

According to the latest available data of the national representative survey on the health of the French population (from 15 to 85 years old), the 'Baromètre Santé' (Health Barometer) of the National Institute of Health Prevention and Education (Institut National de Prévention et d'Education pour la Santé, INPES) (Beck et al., 2011), when compared to general population, young people (15–30 years old) engage in more risky behaviours such as alcohol misuse and high tobacco consumption. However, only 4 per cent of the about 6,000 young respondents of this survey reported a bad or very bad physical health, whereas 9 per cent had been diagnosed with a major depressive disorder, and 22 per cent had already used antidepressants or tranquillizers (Beck and Richard, 2013). Overall, mental health problems of young people seem to be more alarming than their physical health status (Eckersley, 2011), with suicide being the second cause of death for them after road accidents (WHO, 2003).

In France, students constitute a large share of the total young population: in 2015, they were 2.55 million out of 3.10 million young people aged between 18 and 24 years (Ministère de l'Education Nationale, de l'Enseignement Supérieur et de la Recherche [MENESR], 2016). Concerning their health status, a national survey conducted in 2013 on about 40,000 university students, reported that around 11 per cent of them were not satisfied with their physical health (OVE, 2014). Another French survey conducted in 2016 on about 8,000 students revealed that 14 per cent had already had suicidal thoughts (Mourgues and Le Breton-Lerouvillois, 2016). Previous international research has confirmed that being in higher education is associated with many stressors, and common mental health problems are at their developmental peak in this transitional phase (Farrer et al., 2013).

The French Health System for the Young and Specifically for Students: Health Insurance System and Health Services

In order to explain ADMC in students, it is important to define the contextual system of medical care they live in (Wyn, 2008). The French health insurance system partially covers the young population through its mandatory national health insurance (Organisation for Economic Co-operation and Development [OECD], 2014). The French health system offers specifically to students a Students' Health Insurance, which is managed by two different entities, one at the national level and the other at the regional level, providing an equal offer (Sécurité Sociale, 2013). When registering at university, all students must imperatively choose one of the two entities and subscribe to it in order to be covered for the whole university year. The mandatory Students' Health Insurance covers about two-thirds of students' health expenses. For the remaining third, a wide offer of voluntary complementary private health insurance is available. If students decide not to subscribe to a voluntary complementary private health insurance, they have to pay themselves the remaining third of their health expenses.

In spite of the advantageous conditions offered by the French health system, students have some difficulties in clearly understanding its functioning (Beck and Richard, 2013). Before registering at the university and subscribing to the Students' Health Insurance, French young people are mostly affiliated to the health insurance of their parents. Parents are usually responsible for the health of their children: they fix the appointments with health professionals, they pay for the consultations, they manage all administrative aspects concerning health insurance, etc. (American Academy of Pediatrics [AAP] and American Academy of Family Physicians [AAFP], 2011).

In order to meet the specific health needs of university students whose access to care is considered as a health priority objective of national public health policies, the French Ministry of Higher Education and Research has also established in the years 2007 and 2008 the creation of academic services of preventive medicine and health promotion called *Services Universitaires de Médecine Préventive et de Promotion de la Santé* (SUMPSS). Each French university is obliged to create a SUMPSS where students can benefit from treatment and care for free or with a reimbursement by the Students' Health Insurance.

Methods

The servi-Share Study

The present study, called *servi-Share* (services in the *i-Share* project), (Montagni et al., 2017) is nested in the larger on-going *i-Share* (Internet-Based Students Health Research Enterprise) cohort study, a French nationwide online survey on the health and well-being of 30,000 university students (www.i-share.fr), whose principal investigators are based at the University of Bordeaux. Drawing on some findings of the baseline *i-Share* survey, we were inspired to look further in the issue of ADMC. In fact, data collected up until March 2016 ($N = 8{,}770$; 75 per cent females) were alarming: 37 per cent of students declared having gone without recommended care notwithstanding the need to see a doctor (general physician or specialist); and 15 per cent reported having gone without buying a medicine prescribed by a doctor. The *servi-Share* study was then conducted between April and May 2016 as a small-scale exploratory study on ADMC in a new sample of students in the city of Bordeaux. A mixed-methods approach was adopted in order to uncover the reasons underlying the ADMC phenomenon through two fieldwork phases:

1. A quantitative phase: a questionnaire survey on 126 students.
2. A qualitative phase: 16 individual in-depth interviews with students.

Both fieldwork phases were conducted within the four campuses of the University of Bordeaux and of other seven higher education institutions (both private and public) in the metropolitan area of Bordeaux, for a total of 11 sites. Each site corresponded to different faculties (e.g., Carreire site for medicine and health sciences, Talence site for informatics and engineering). Participants were voluntary, more than 18 years old, French-speaking, and registered in a higher education institution (university or private institution) for the academic year 2015/2016. Both phases were conducted by three public health graduate students. This peer-to-peer approach was deliberately chosen to make the respondents feel at ease and disclose with less inhibition their points of view. Even if some bias is at stake, for example confidentiality of collected data, peer interviewing has many benefits and can help reduce power differentials (Byrne et al., 2015).

The *servi-Share* study was conducted within the regulatory framework of the *i-Share* study by the Commission Nationale de l'Informatique et des Libertés (CNIL; National Commission of Informatics and Liberties), after the submission of a standard declaration.

The Quantitative Phase

As mentioned above, non-health-seeking behaviour is hardly measurable: validated scales are not consistently applied, except for questionnaires addressing ADMC in clinical populations (Lund-Nielsen et al., 2011; Persoskie et al., 2014), and especially in people with mental illness (Clement et al., 2012; Ye et al., 2012). As there are no standardized questionnaires, the way in which people are asked about their non-health-seeking behaviour varies between studies (Scott and Walter, 2010). An *ad hoc* questionnaire exploring students' ADMC was co-designed by four public health researchers, two health professionals, two health services providers and three public health graduate students. The questionnaire was based on the items of existing questionnaires investigating ADMC in French university students (emeVia, 2015; OVE, 2014) and integrated with new items taken from the baseline *i-Share* questionnaire.

The questionnaire was administered face-to-face by three public health graduate students who collected on paper the answers to 27 close and open questions concerning the following issues: use of different health services (from general to mental health services) in the last 12 months; reasons for ADMC; economic conditions (family support, work activities, university grant); and perceived barriers to health service access. Socio-demographic conditions were collected as well (age, gender, field of study, year of study, place of living, place of birth). A preliminary test phase with five students was carried out in order to check for the coherence of the questions and the easiness to answer to them. These five students were excluded from the final analyses. The time of administration and completion of the questionnaire was about 15 minutes.

Students were recruited in strategic places, that is, courtyards, halls in front of the university libraries, canteens. Students were selected randomly in 11 pre-identified different sites following a quota sampling. The recruitment was oriented in order to have similar numbers of females and males, and of students from different disciplines. At the end of each day, the three public health graduate students administering the questionnaire were asked to report: (i) the number of female and male respondents; (ii) their discipline and (iii) the number and gender of students who refused to participate. Following this daily report, the three interviewers were able to adjust their recruitment strategy in order to approach more female or male students, or students of specific disciplines by going to their corresponding sites.

The Qualitative Phase

After a preliminary test phase with the interview of one student excluded from this study, a total of 16 face-to-face interviews were carried out by two public health graduate students. These two students had been asked to contact by mail or telephone (available from the *i-Share* project database) useful potential candidates for our study based on two sole criteria, that is, gender and discipline. A snow-balling approach (Patton, 2001) was then used to facilitate the recruitment of different student profiles in terms of gender and discipline, without taking into account any other personal information including health. We opted for this purposeful sampling (Palinkas et al., 2015) for practical reasons, but we were aware of its possible ethical risks related to the anonymization of the results. Respondents were asked to sign an *ad hoc* document to agree on participation and provide their informed consent. In order to preserve the confidentiality of collected data, we committed not to publish individual results. Personal contact information (telephone number or e-mail) were not communicated to the main investigators of the study but kept confidential by the two public health graduate students.

Interviewers followed a semi-structured template composed of four main thematic axes: (i) ADMC concerning any health professional (from GPs to specialists); (ii) going without treatment/complementary medical exams; (iii) not accessing any health service and (iv) knowledge of the health system in terms of national health insurance scheme and local services provision.

Following the scheme of the questionnaire, the same data on socio-demographic and economic conditions were also collected. During the interviews, students were left free to express their opinions and add further elements to the conversation, going beyond the structure of the interview template. An interview lasted on average 75 minutes, with the longest one lasting 2 hours and the shortest one 45 minutes. Given the time implication, interviews were programmed by appointment, and interviewed people were compensated for their participation with two cinema tickets each. The interviews were carried out in an isolated place within the campus (e.g., empty classrooms), a cafeteria next to the campus, or, when requested by the student, directly at students' home. Interviews were recorded on a dictating machine.

The Mixed-Methods Analysis

Analysing ADMC represents a real methodological challenge. Through the sole quantitative approach, we may risk to explore exclusively either cognitive processes concerning the decision to adopt this non-behaviour or the factors enabling or limiting ADMC. Our aim was instead to evaluate the interaction of all these elements. We opted then for a mixed-methods approach with the coordinated collection of multiple quantitative and qualitative data. The paucity of previous research on this subject furtherly justified the need for a mixed-methods approach.

For the quantitative phase, the survey data were manually entered in an Excel file and cross-checked for consistency by the four students administering the questionnaires under the supervision of a junior researcher. The final dataset was further checked by a senior researcher and then analysed using SPSS®. Descriptive analyses were performed.

For the qualitative phase, two of the study authors provided partial transcriptions of the interviews following a scheme based on the interview template, and further analysed the texts with the help of a third study author. Qualitative responses were themed using a systematic thematic analysis approach (Guest et al., 2011). The four main thematic axes were graphically identified through the use of the Visual Understanding Environment (VUE®) software. For each participant, qualitative data were then summarized in two tables: 1 with the four main thematic axes treated by each subject; and 1 resuming for each subject his/her main statements on these four thematic axes (*verbatim*). The selection of the information in the two tables allowed for a horizontal thematic analysis highlighting the discourse, knowledge and practices expressed by students on each topic. We provided quantitative counts of the number of respondents, listing each reason in order to convey the frequency of responses, and qualitatively describe themes to provide context and explanation.

Findings from both phases were grouped in the three main dimensions defining ADMC in our study: (i) avoidance or delay of a consultation with any health professional (from GPs to specialists); (ii) going without treatment/complementary medical exams and (iii) not accessing any health service, that is, any service dealing with the diagnosis and treatment of disease. A fourth dimension was also explored, that is, knowledge of the health system in terms of national health insurance scheme and local services provision.

Findings

Socio-economic and Demographic Profile of Participants

Our samples were constituted of 57.1 per cent females for the quantitative phase ($n = 72$, $N = 126$), and 68.7 per cent females for the qualitative phase ($n = 11$, $N = 16$). For the quantitative phase, a total of 165 students were approached and 39 (29 male students, 75 per cent) refused to participate (23 per cent). For the qualitative phase, all 16 approached students decided to participate. The mean age for the quantitative phase was 22.1 years (standard deviation 3.1, age range 18–36 years) and 22.3 years (standard deviation 1.6, age range 20–25 years) for the qualitative phase. A small number of surveyed (12.7 per cent) and interviewed ($n = 1$) students were registered in private higher education institutions, with the majority of participants attending the public University of Bordeaux. Forcing our recruitment in order to cover all disciplines, for the quantitative phase, students' fields of study were equally represented (ratios ranging between 21.4 and 30.9 per cent). In the qualitative phase, participants were mainly studying Social and Human Sciences (62.5 per cent). Students were mostly attending their first three university years (undergraduate degree) for the quantitative phase (69.1 per cent), and more than the third year (postgraduate degree) for the qualitative phase (62.5 per cent).

Table 1 shows the characteristics of participants who reported ADMC.

Table 1. Characteristics of Participants in Both Phases of the Study Reporting ADMC

	Quantitative Phase		Qualitative Phase	
	Yes (*n* = 78) *n* (%)	No (*n* = 48) *n* (%)	Yes (*n* = 13) *n* (%)	No (*n* = 3) *n* (%)
Gender				
Male	36 (46.2)	18 (37.5)	4 (30.7)	1 (33.3)
Female	42 (53.8)	30 (62.5)	9 (69.3)	2 (66.7)
Study field				
Social and human sciences	20 (25.6)	9 (18.8)	10 (76.9)	— —
Health disciplines	23 (29.5)	16 (33.3)	— —	1 (33.3)
Economy and law	18 (23.1)	13 (27.1)	2 (15.4)	— —
Sciences and technologies	17 (21.8)	10 (20.8)	1 (7.7)	2 (66.7)
Year of study				
1	24 (30.8)	15 (31.3)	— —	1 (33.3)
2	21 (26.9)	14 (29.2)	3 (23.1)	— —
3	10 (12.8)	3 (6.3)	1 (7.7)	1 (33.3)
More than 3	23 (29.5)	16 (33.2)	9 (69.2)	1 (33.3)
Family contribution				
Yes	51 (65.4)	38 (79.2)	10 (76.9)	1 (33.3)
No	27 (34.6)	10 (20.8)	3 (23.1)	2 (66.7)
School grants				
Yes	32 (41.0)	12 (25)	8 (61.5)	2 (66.7)
No	46 (59.0)	36 (75)	5 (38.5)	1 (33.3)
Work (regularly or occasionally)				
Yes	48 (61.5)	30 (62.5)	12 (92.3)	1 (33.3)
No	30 (38.5)	18 (37.5)	1 (7.7)	2 (66.7)
Place of living (1 missing value in the quantitative phase)				
With parents, family	29 (37.2)	12 (25.5)	2 (15.4)	1 (33.3)
University residence	6 (7.7)	4 (8.5)	1 (7.7)	1 (33.3)
Apartment alone	6 (7.7)	7 (14.9)	3 (23.0)	1 (33.3)

(Table 1 Continued)

(Table 1 Continued)

	Quantitative Phase				Qualitative Phase			
	Yes (*n* = 78) *n* (%)		No (*n* = 48) *n* (%)		Yes (*n* = 13) *n* (%)		No (*n* = 3) *n* (%)	
Apartment with others	41	(47.4)	24	(51.1)	7	(53.9)	—	—
Birth place								
Bordeaux region	51	(65.3)	34	(70.8)	5	(38.5)	1	(33.3)
Other French regions	14	(17.9)	10	(20.8)	8	(61.5)	1	(33.3)
Outside France	13	(16.8)	4	(8.4)	—	—	1	(33.3)
Complementary health insurance (14 missing values in the quantitative phase; 2 in the qualitative phase)								
Yes	67	(95.7)	40	(95.2)	11	(84.6)	3	(100)
No	3	(4.3)	2	(4.8)	—	—	—	—

Source: Authors' own.
Note: *Variable is continuous and values indicate mean.

The percentage of students having a regular or occasional job was 61.9 per cent for the qualitative phase and of 81.2 per cent for the qualitative phase. Students supported economically by their family were 70.6 per cent in the quantitative phase, and 68.7 per cent in the qualitative phase.

Finally, none of the students of both quantitative and qualitative phases self-reported a chronic issue. In the qualitative phase, students declared the need to consult mainly for the following health domains: general health (n = 16), mental health (n = 2) and gynaecology (n = 4 females). This issue was not explored in the quantitative phase.

Students' Avoidance or Delay of a Consultation with Any Health Professional

Participants were asked in both phases of the study whether they 'had avoided in the last 12 months visiting a doctor even if they suspected they should'. In the quantitative phase, 61.9 per cent of respondents reported ADMC, while in the qualitative phases almost all students (13/16) had experienced ADMC.

Participants who reported ADMC in the quantitative phase identified the following reasons for ADMC: seeking medical care was time-consuming (71.4 per cent), expensive (46.8 per cent) and complicated (36.5 per cent). Results for the qualitative phase were almost similar: eight participants reported that medical care was expensive for students in general and for themselves in particular; four argued the complexity of seeking medical care; and three reported that seeking medical care was time-consuming according to their academic workload. In the qualitative phase, other two overarching reasons for ADMC were identified: lack of information on the health insurance system or the services offer, and personal factors ('disinterest in one's health', 'fear and distrust concerning medical consultations'). Figure 1 illustrates reasons for ADMC in the qualitative phase of our study.

Avoidance of medical care

- Cost is too high (*n* = 8)
- Not enough time/too busy (*n* = 1)
- Does not know a service/doctor (*n* = 1)
- Bad relation with the doctor (*n* = 1)

Delay of medical care

- Wait for the illness to improve with time (*n* = 1)
- Not used to go to the doctor (*n* = 1)
- Cost is too high (*n* = 1)
- Not enough time/too busy (*n* = 1)
- Fear to see the doctor (*n* = 1)
- Does not know a service/doctor (*n* = 1)

Figure 1. Reasons for ADMC in Students (*n* = 16)

Source: Authors' own.

Students' witnesses on this subject are of interest: 'Anytime I feel I need to go to the doctor I have run out of money and I have so many things to pay. Well, my health is at the end of my priorities list'; 'I do not have time and I delay and delay and delay'; 'I go seeing a doctor only if it is really serious and my health is in danger'.

Students Going without Treatment/Complementary Medical Exams

In the quantitative phase, 38.9 per cent of students reported having already gone without buying treatment prescribed by a doctor or undergoing complementary medical exams. Main reasons were: economic problems (32.7 per cent); feeling that such treatment/complementary exams were useless (26.5 per cent); and laziness in going to the pharmacy or undergoing complementary exams (12.2 per cent).

In the qualitative phase, 10 students reported having already gone without buying treatment prescribed by a doctor or undergoing complementary medical exams. All 10 students reported as a main reason for this the high costs of treatment and complementary medical exams. One of the students declared: 'I really do not like the idea of taking a treatment, a chemical product. I have a very bad opinion of medicines.'

Students' Non-access to Health Services

In the quantitative phase, 92.9 per cent of students reported having consulted a GP at least once in the last 12 months with on average 2.4 GP consultations per year. The GP was located near their family residence (72.6 per cent versus 28.2 per cent near their actual place of living, and 19.7 per cent near the university site). As for other specialists, the main consulted health professionals in the last 12 months were: ophthalmologist (39.8 per cent), gynaecologist (34.9 per cent of the female sample) and dentist (27.7 per cent). Similarly, to GPs, students preferred consulting specialists near their family house.

The qualitative phase underlined the important role of GPs in students' health-seeking. Participants preferred to delay access to care in order to firstly consult their GP. They declared feeling more at ease in consulting somebody they already knew and trusted. The interviews also allowed the identification of the practices of students for their first access to medical care. Whether only one student reported going immediately to the doctor for any minimal symptom, all other students tended to delay access to medical care. Figure 2 illustrates the reasons for a first access to

Reasons for first contact with a health service

- When pain does not improve on its own (*n* = 16)
- When pain becomes too strong (*n* = 12)
- When self-medication does not work anymore (*n* = 6)

Attitudes prior to a consultation

- Ask for family's advice on how to heal the pain (*n* = 10)
- Let parents manage their health and first access to medical care (*n* = 4)
- Ask for family and friends' advice to identify the illness (*n* = 3)
- Ask for family's advice on where to consult (*n* = 2)

Criteria to choose a health service

- Geographical proximity (*n* = 7)
- Family and friends' advice (*n* = 6)
- Short waiting times (*n* = 4)
- Gratuity (*n* = 1)

Geographical location of the consulted health service

- Near family's house (*n* = 11)
- In the Bordeaux region (*n* = 4)
- Near the university (*n* = 1)

Figure 2. The First Access by Students to Medical Care (*n* = 16)

Source: Authors' own.

a health service (GPs and specialists included), the attitudes prior to a consultation, the criteria to choose a health service and the geographical location of the consulted health service.

Students' statements are indicative on this subject, for example, 'I seek care when painkillers have no effect anymore', or 'I will go and see a doctor when I feel I cannot go on this way. I will understand whether the pain is a handicap for me.' A large majority of the qualitative sample declared recurring to self-medication ($n = 13$) and alternative medicines ($n = 13$).

Knowledge of the Health System in Terms of National Health Insurance Scheme and Local Services Provision

Within the survey, we asked students whether they knew which was their Students' Health Insurance institution (the regional or the national one) and whether they had or not a complementary health insurance. The rates of non-response (i.e., 'I don't know') were 5 per cent for the Students' Health Insurance institution, and 11 per cent for the complementary health insurance. The qualitative phase allowed for a deeper evaluation of the lack of information on both the health system and the national health insurance scheme by students. Interviewed participants declared that they felt the information they had on the national health system was insufficient. Half of the qualitative sample declared having chosen their Students' Health Insurance institution by chance or by default leaving a third person (mainly their parents) deciding for them. A student declared: 'A little bit more information on it [national health insurance scheme] will not hurt. Then I tell myself that it's a real brain-teaser and my mother is more able to manage it. I do not feel I have the appropriate tools to manage this'.

The other half of the qualitative sample opted for the institution whose subscription process seemed simpler.

Students from the qualitative phase reported understanding the way the national health insurance system functions because they had a specific need (e.g., buying recommended treatment) or because they had previously had a problem (e.g., reimbursement difficulty) and had directly been confronted to the national health insurance system. Furthermore, students paying themselves their complementary health insurance were more informed than their peers who were economically supported by their parents. Inversely, students reported not understanding the way the national health insurance system functions because they had never felt the need to get information over it. In most of the cases, parents were in charge of all their health care documents. More broadly, lack of information seemed to be due to a disinterest. The declaration of a student is illustrative of the others: 'Information is available but it is not really efficient. Actually, I don't care at all, even if I see flyers or posters in my campus'.

As for local services provision, in the quantitative phase, 45.2 per cent of students reported not knowing any youth-friendly health service, including the Bordeaux SUMPSS. In the qualitative phase, only four students reported not knowing any youth-friendly health service, including the Bordeaux SUMPSS. However, only six students had already accessed one of these services. One of the students declared: ‘I went to see a GP at the SUMPSS since the consultation was free. Yes, I did it because it was free. If I had to pay 23 euros for the normal consultation, I would not have gone to the SUMPSS. I have no job and find GP consultations super expensive’.

Discussion

Reasons for ADMC are highly varied across different populations and countries. The specific case of French university students is of interest as it underlines a remarkable paradox. Highly educated young people, mainly coming from a middle-class background, despite having access to quality medical care and being covered by a convenient health insurance, still neglect their health and do not seek medical care. Given its substantial frequency, the phenomenon of ADMC cannot be justified merely as an act of irresponsibility or self-destruction.

A possible explanation may lie in the fact that a number of human health norms and attitudes can induce young people to consider any given psycho-physical problem, whatever its nature—as something that needs to be ‘medicalized’, following the definition provided by Conrad (2007). In this case, according to Conrad’s critical approach, health professionals may be systematically and immediately contacted at the onset of any health issue. However, if one considers that most people are capable of basic health management, not all ADMC episodes represent an actual health risk. More specifically, young people avoiding or delaying medical care may opt for other care solutions, including self-help, use of the Internet for health information seeking, and self-medication (Gulliver et al., 2010).

Against this background, the reasons for ADMC should be found elsewhere and may depend on the specificity of being a young university student. Data from our study showed that young people facing a transitional phase in their life had fewer resources to manage their health autonomously, and often exposed themselves to risks and complications because of ADMC. This was found to be especially the case of young people who are caught in-between their family of origin and their new independent life. A survey on students’ health conditions shows that 13 per cent of them have avoided care for financial reasons, and that ADMC increases with age, this rate being 20 per cent for students aged 23–25 years (OVE, 2014). This might be explained by students’ desire to become financially and emotionally independent. For younger students in their early twenties, family plays an important protective role in financing medical care, whereas young adults aged 23–25 years with a stable job are able to provide for themselves (Arnett, 2006).

Young people avoiding or delaying medical care find themselves in between two highly protective situations. In the first situation, parents offer high protection by providing their children with their insurance rights, and by acting as health educators. In the second situation, students are highly autonomous both on the economic level, thanks to their first stable job, and on the personal level, because of living alone and having their first stable romantic relationships. The transition between these two situations is neither direct nor fast, but takes place gradually, with variations in terms of time and manner.

Some students might prefer self-help due to their newly found independence and ability to be self-reliant during their transition into young adulthood (Rickwood and Bradford, 2012). Others, instead, might opt for a more reassuring process, that is, collecting information from their family environment. Our study showed that family is the first source of help and information for seeking medical care and continues to be so for a long time. During this transitional period, young people are slow in understanding and appraising the health insurance system without the help of their family (Kovacheva, 2006). Despite governmental claims that access to medical care in France is simple, participants in our study reported having difficulties in understanding its mechanisms and administrative aspects, for example, modes of payment and reimbursement (Manganello, 2008). The ADMC of students in the French city of Bordeaux needs to be understood within this specific context.

Furthermore, three types of 'cost' seem to trigger ADMC in students: 'time cost' (e.g., sacrificing one's time to see a doctor); actual 'financial cost', since students think that medical care is too expensive; and 'relational cost' (e.g., disclosing or admitting one's health issues). Students in our study deem these costs to be equally too high.

To better interpret the ADMC phenomenon here reported, it is important to understand the four stages of students' health-seeking behaviour: (i) getting informed; (ii) medicalizing the problem; (iii) consulting a health professional; and (iv) managing administrative issues. Young students must appraise these four stages which require specific competences. The stage of collecting information is crucial in the process of recognizing a health issue. The analysis of both qualitative and quantitative data shows that most students use the Internet to access health resources. However, there is also evidence that students trust health professionals, preferring medical advice rather than digital resources such as websites (Montagni et al., 2016). Yet, in this period of uncertainty, parents continue to be students' main source of health information.

The stage of problem medicalization consists of categorizing one's problem as a health issue (i.e., 'I have a health problem'), even if sometimes reported symptoms are not very specific or well defined (e.g., sleeping difficulties, anxiety, etc.). Based on their experience and level of expertise, parents identify which problems must be medicalized and which do not depend on other factors such as lifestyle, lack of sleep, academic stress, etc. Parents usually monitor their children's health and participate in their health prevention. Students have several difficulties in identifying the nature of their problems or tend to merely think that symptoms will improve over time. This stage can potentially be accompanied by self-medication practices (La mutuelle des étudiants [LMDE], 2015; OVE, 2014). Finally, many self-reported issues are not 'acute', and may have but a light impact on students' daily life (i.e., 'I have a problem and I try to solve it myself').

The medical consultation stage takes place when the management and treatment of the health issue requires professional intervention (i.e., 'I need the help of a professional'). Usually, in early adulthood, parents are still in charge of making appointments with a health professional of their choice, thus imposing him/her to their children. However, once entered university life, young people are expected to develop more autonomy to engage in the management of their own health. On this matter, it seems that female students are more capable of replacing the role of their parents. In other words, female gender remains positively correlated to physician consultation (Benzeval and Judge, 1996). This may be justified by the fact that young women face the need to become independent in the management of their own health more precociously than young men, as women have to undergo early gynaecological and contraceptive follow-ups.

As for the last stage concerning administrative issues (i.e., payments, reimbursements, signing up to a specific health insurance institute, etc.), these are mostly managed by parents. The qualitative data of our study showed that half of the participants had randomly chosen their health insurance or had left their parents decide for them. The gradual detachment from the family grip follows a different course according to the stage involved. Indeed, detachment was found to be quicker when it came to collecting information and being able to label one's issue as a health problem; conversely it appears to take longer for students to achieve financial independence and thus gain access to health services. Family is still the main financial source for 70.0 per cent of our study participants against 23.8 per cent of students who have a job. Both quantitative and qualitative data highlighted the difficulties students face in achieving financial independence and thus gaining access to medical care, with half of the participants of our study judging it too expensive.

Although this study was carried out in France, the ADMC phenomenon here observed is common among people of the same age range across high-income countries. For instance, recent studies in Iceland (Vilhjalmsson, 2005; Vilhjalmsson, et al., 2001) have found older adolescents and young adults to be the most disadvantaged age group in terms of access to needed medical care. The implications are therefore potentially far reaching, at least at European level.

Limitations

The main limitation of this study is its small sample for both quantitative and qualitative phases. Another limitation is the use of neither non-standardized nor validated scales to measure ADMC. However, because of the paucity of previous studies on this complex phenomenon, and the absence of validated questionnaires on this topic, our study represented a first attempt to explore ADMC. Finally, given the subjective nature of qualitative coding, alternate categorizations of the data for the qualitative phase were possible. Future research on a larger sample and interviews with participants recruited via an approach other than the snow-ball one would provide additional valuable insights in the exploration of ADMC and its reasons in young people.

Conclusions and Implications for Policy and Practice

Our results were directed towards different actors of student's health, that is, academic staff, clinicians and health services providers, policymakers as well as families, who are all endeavouring to find possible strategies to reduce ADMC in the young.

Information on available medical care and health services should be provided by appropriately trained university staff who could act as gatekeepers between young people and healthcare providers. Involving families and mostly parents is also crucial. As the first gatekeepers to the health care systems, parents could help their children become autonomous in seeking medical care. Finally, health system is also another issue requiring careful reflection. Even if efficient and capable of covering almost totally the costs of any type of care, the French health insurance system is considered as very complex by students. Young people sometimes ignore that their health expenses can be covered, opting for ADMC because they think medical care is too expensive for them. Providing a clearer and effective communication on the function of health insurance and, more in general, health system could facilitate the comprehension and consequently reduce ADMC.

Ethics Approval

Ethical permission for both phases of this study was granted by the overall ethical framework of the i-Share study.

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Conflicts of Interest

The authors declare that they have no competing interests.

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