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Pacific secondary school students' access to primary health care in New Zealand

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Abstract

Aim Previous research states Pacific peoples' experience barriers to primary care. A better understanding of young Pacific peoples' experiences and perspectives on health services can improve responsiveness to young Pacific New Zealanders' health needs. This study identifies primary health (including dental care) barriers in access, utilisation and unmet need for Pacific youth ages 13–17 years.

Methods Data were collected as part of Youth'07, a nationally representative survey of the health and wellbeing of New Zealand (NZ) adolescents. 1178 Pacific students who identified any of their ethnicities as Samoan, Cook Islands, Tongan, Niue, Tokelauan, Fijian, or Other Pacific Peoples were included.

Results Compared to their NZ European peers, Pacific youth accessed primary health care services, including dental care less often in the previous year; Pacific students were twice more likely to forego accessing health care and dental care when needed; were more likely to find it difficult to get healthcare for specific health issues like injuries/accident; to stop smoking, alcohol/drugs use and for chronic conditions. Not knowing how to access healthcare and rating unfair treatment by health professionals due to their ethnicity were significant factors impacting access.

Conclusion Good access and utilisation of primary care services is an important resource of preventable health for Pacific New Zealanders. This study finds that Pacific youth are an underserved group experiencing inequitable access within the current primary healthcare sector. Innovative approaches to specialist youth-oriented healthcare services, professional training and increasing the Pacific health workforce are recommended interventions.

Over the past decade, reducing health inequalities through improving Pacific people's access to and through primary health services has been a key focus of the Primary Health Care Strategy (PHCS).[1] Access, in this context, means the capacity to obtain health care when needed. National data shows Pacific populations in New Zealand experience unmet health needs in primary care and there are variations in the quality of care experienced.[2–5]

A stocktake of health needs brought together information on more than 150 health and social indicators of relevance to Pacific peoples.[6] It identified poorer health status, greater exposure to risk factors for poor health and access barriers to health care for Pacific people. Whilst this study reports on a wide range of indicators, its weaknesses included a lack of indepth analysis and analysis for Pacific youth.

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A key point of difference between Pacific and non-Pacific groups in New Zealand, is the youthful demography of Pacific People, with 38% of the Pacific population under the age of 15, which is much higher than the NZ general population overall at 22%.[7]

The median age for New Zealand's Pacific population is 21.1 years, which is considerably lower than the median age of the New Zealand population overall at 35.9 years. It should be noted here, that in terms of demography, Pacific young people account for the majority of the Pacific population in New Zealand (56% under the age of 24 years).

Good access and utilisation of primary care services is an important resource of preventable health for Pacific young people.[8] Current Ministry of Health targets prioritises effective primary health services that can be delivered "Better, Sooner, More Convenient".[9] The factors that affect access to health services and the delivery of quality of care need to be better understood in order to improve healthcare-related outcomes of an important burgeoning group of young New Zealanders.

This study undertook secondary analysis of the Youth 2007 data set to define any barriers in primary health and dental care access, utilisation and unmet need for Pacific youth. It identified factors impacting on access and defined disparities between Pacific and New Zealand European students.

This information will be vital in addressing the goals of the Better, Sooner, More Convenient Primary Health Care Strategy.[10]

Method

Survey background—Data for the current study were collected as part of Youth'07, a nationally representative sample of the health and wellbeing of secondary school students in New Zealand. First, 115 schools were randomly selected and 96 agreed to participate in the survey, representing an 84% response rate for schools. The participating schools reflected the general characteristics of secondary schools in New Zealand.[11] From the participating schools, students (n=12,355) were randomly selected from the school roll and invited to participate. Of these, a total of 9107 students formed the final Youth'07 sample, representing a 74% response rate.

On the day of the survey, students were asked to come to a designated room. Upon arrival students were given an anonymous login code to access the survey. The survey included a 622-item multimedia questionnaire administered on a Nokia Internet tablet and identification of their census meshblock number (based on their residential address) to determine the extent of their neighbourhood deprivation. The multimedia nature of the questionnaire meant that all students could read each question and response options themselves, while listening to the questions and responses being read aloud through headphones.

The University of Auckland Human Subject Ethics Committee granted ethical approval for the study. School principals consented to participation in the survey on behalf of the Boards of Trustees. Students and their parents were provided with information sheets about the survey. Students consented themselves to participate in the study on the day of the survey. A more detailed description of the research methodology can be obtained elsewhere.[11]

Secondary analysis of the data provided by Pacific students (13% of the total sample) was undertaken. Ethnicity was recorded using New Zealand 2006 Census ethnicity question whereby participants select all of the ethnic groups that they identified with.[12] All students who self-identified any of their ethnic groups as Samoan, Cook Islands, Tongan, Niue, Tokelauan, Fijian, or Other Pacific Peoples are included in these analyses (n=1178).

New Zealand European students identified through ethnic prioritisation (i.e., students that are non-Maori, non-Pacific, non-Asian) were included in the analyses (n=4797). Intra-Pacific ethnicity analyses could not be completed as findings may be confounded by small sample numbers.

Outcome measures—To assess the level of healthcare access amongst students, the question *When was the last time you went for health care?* was used for analysis.

This question had 4 response options:

- 0–6 months.
- 7–12 months.
- 13–24 months ago.
- More than 2 years ago.

These four responses were dichotomised into two categories, with the first two options classed as; accessing healthcare in the last 12 months and the last two options classed as; not accessing healthcare in the last 12 months.

To find out what **types of healthcare services students were accessing**, students were asked *Which of the following places for health care have you used in the last 12 months? (pick as many or as few as apply to you).*

Students were presented with 10 choices, 8 of which were used in this study:

- Family doctor, medical centre or GP clinic.
- School health clinic.
- After-hours or 24-hour accident and medical centre.
- Hospital accident and emergency.
- Youth centre.
- Family planning or sexual health clinic.
- Traditional healer (e.g. tohunga, fofo).
- Alternative health worker (e.g. naturopath, homeopath, acupuncturist).

(The last two response options "Other" and "None" were excluded from the analyses.)

Foregone healthcare was assessed using the question *In the last 12 months, has there been any time when you wanted or needed to see a doctor or nurse (or other health care worker) about your health, but you weren't able to?* Students were able to indicate by choosing a Yes or No response.

If students chose a Yes response to not accessing healthcare in the last 12 months, they were asked a further branching question on **reasons for not accessing healthcare when needed**. The question they answered was *Here are some reasons people don't get health care even though they need to. Have any of these ever applied to you? (you can answer as many or as few as you want.)*

Table 4 presents the 10 reasons (response options) students were offered to choose from using a Yes or No response. The last response option to this question was "other" reason(s) which has been excluded from the analyses.

All students were asked to indicate the **types of health issues they may have had difficulty getting help for**. The question was *In the last 12 months have you had any difficulty getting help for any of the following? (you can answer as many as apply to you).* Table 3 presents the eight reasons (response options) included in the analyses. The last two response options; "something else" and "I haven't had difficulty getting help" were excluded from the analyses.

Dental care access was measured using the question *How long has it been since you last visited a dentist, dental nurse or other dental health worker (such as dental therapists or orthodontists).*

There were 6 response options available:

- Within the past year (less than 12 months ago).
- Within the past 2 years (more than 1 year but less than 2 years ago).
- Within the past 5 years (more than 2 years but less than 5 years ago).
- 5 or more years ago.
- I have never seen a dentist or any other dental health worker.
- Don't know/not sure.

These 6 responses were dichotomised into two categories, with the first option classed as; **accessing dental healthcare in the last 12 months,** and all other options classed as; not accessing dental healthcare in the last 12 months.

Foregone dental healthcare was assessed using the question *In the last 12 months, has there been any time when you needed to see a dentist or dental nurse about your teeth or gums, but weren't able to?* Students were able to choose from three responses; Yes or No or don't know. These three options were collapsed into two categories, with the last two options combined as a No category.

The quality of health care received by young people was assessed with a question on personal interactions with a health professional (e.g. doctor, nurse, dentist etc.). Students were asked *Have you ever been **treated unfairly** (e.g. treated differently, kept waiting) **by a health professional** (e.g. doctor, nurse, dentist etc.) because of your ethnicity or ethnic group?*

Students were able to choose from 4 options:

- Yes, within the past 12 months.
- Yes, more than 12 months ago.
- No.
- Don't know/unsure.

These responses were dichotomised into two categories with the first two options combined to a "yes" category and the last two options combined as a "no" category.

Demography—*Age*, *gender* and *ethnicity* were determined by self-report. *Small area deprivation* (NZDep) was determined using the 2006 New Zealand Deprivation Index.[13] For descriptive purposes, the NZDep Index deciles were categorised into three groups reflecting low deprivation (1–3), middle levels of deprivation (4–7), and high deprivation (8–10).

Analysis—Frequencies and percentages were used to describe the characteristics of students. Chi-squared tests were used to investigate the bivariate associations between ethnicity and outcome variables. Adjusted relative risk (aRR) was estimated using a log-binomial regression model controlling for age, sex and socioeconomic deprivation. All analyses were conducted using the procedures in the SAS v9.2 software (Cary, NC) and accounted for the clustered design of the data.

Results

Table 1 shows the demographic characteristics of the students included in this study. Information was available for 5975 students; 1178 Pacific and 4797 NZ European students. There were no gender differences across the two groups of students, but there were differences by age and by socioeconomic status. Pacific youth were younger and had much higher levels of social deprivation than NZ European students.

Types of healthcare services utilised—A question on the types of healthcare services that Pacific students accessed in the previous 12 months, showed that the "family doctor, medical centre or GP clinic" was rated the most used by Pacific students (91.4% compared to NZ European students 93.9% $p = 0.01$), followed by "school health clinic" (32.9% compared to NZ European students 20.1% $p < 0.001$); "the hospital accident and emergency" (18.1% compared to NZ European students 19.1% $p = 0.45$); "an after-hours or 24-hour accident and medical centre" (13.4% compared to NZ European students 16.8% $p = 0.09$); "an alternative health worker (e.g. naturopath, homeopath, acupuncturist" (9.1% compared to NZ European students 12.6% $p = 0.002$); "family planning or sexual health clinic" (6.1% compared to NZ European students 5.0% $p = 0.17$); "a traditional healer (e.g. tohunga, fofo)" (5.1% compared to NZ European students 0.1% $p < 0.001$); "youth centre" (4.0% compared to NZ European students 1.8% $p = 0.002$).

Table 1. Demographic characteristics of Pacific and NZ European secondary school students

Variables	Pacific		NZ European		
	n	%	*n*	%	p-value
Total *n*	**1178**	**19.9**	**4797**	**80.1**	
Gender					
Males	548	46.5	2166	45.0	
Females	630	53.5	2631	55.0	0.77
Age					
13 and under	292	24.8	959	19.8	
14	267	22.6	1139	23.7	
15	240	20.4	1031	21.6	
16	224	19.0	932	19.5	
17 and over	155	13.2	736	15.4	0.009
NZ Deprivation band					
Low	101	8.9	2168	46.4	
Medium	283	25.1	1926	41.0	
High	744	66.0	594	12.5	<.0001

Healthcare access—Table 2 shows the numbers of students who accessed healthcare, including dental healthcare, in the previous 12 months, comparing Pacific and NZ European student proportions. Results showed that, less Pacific students (76.7%) accessed healthcare than NZ European students (86.1%) in the previous 12 months. In terms of dental care, significantly less Pacific students (67.4%) accessed dental health care than NZ European students (84.8%) in the previous year.

Students were asked to indicate whether they needed to see a health worker in the last 12 months, but weren't able to. This is called foregone health care. Table 2 shows that Pacific students were significantly more likely to report foregone healthcare (26.3%), that is, more than one in four Pacific students were not able to access healthcare when needed, compared to their NZ European peers (13.7%). This question was repeated for dental health care and the results were similar, with more Pacific students (17%) reporting not seeing a dentist when needed in the last year, compared to NZ European students (7.2%).

The adjusted relative risk scores for foregone health care was 1.82 and forgone dental care 1.95, meaning that Pacific youth were approximately twice more likely to forego accessing health care and dental care when needed than compared to their NZ European counterparts.

Table 3 presents the results of the analyses for the question relating to particular health issues that students had difficulty getting healthcare for. Pacific students were much more likely than their NZ European peers to rate difficulty in accessing healthcare for six out of the eight possible choices.

Higher proportions of Pacific students, compared to NZ European students, had difficulty in getting healthcare for an "injury/accident"; "help with stop smoking"; "help with stopping drug or alcohol use"; "a long term health condition e.g. Asthma"; "a condition that does not last very long e.g. a cold"; and "pregnancy or pregnancy test".

Table 2. Pacific and NZ European students' reports of dental and healthcare access and treatment by healthcare professionals

Variables	Pacific		NZ European		Adjusted Relative Risk*	CI	p-value*
	n	%	*n*	%			
Accessed healthcare in the last 12 months	850	76.7	4020	86.1	0.90	0.86 – 0.93	<.0001
Foregone healthcare in the last 12 months	293	26.3	642	13.7	1.82	1.57 – 2.12	<.0001
Accessed dental healthcare in the last 12 months	618	67.4	3770	84.8	0.83	0.79 – 0.88	<.0001
Foregone dental healthcare	176	17.0	331	7.2	1.95	1.57 – 2.41	<.0001
Treated unfairly by a health professional	98	10.5	95	2.2	4.53	3.33 – 6.19	<.0001

Table 3. Health issues Pacific and NZ European students' have had difficulty getting healthcare for in the past 12 months

Variables	Pacific		NZ European					
	n	%	*n*	%	p-value	Adjusted Relative Risk*	CI	p-value*
An injury/accident	205	19.9	352	7.9	<.0001	2.11	1.69 – 2.64	<.0001
Help with stop smoking	68	6.6	79	1.8	<.0001	2.42	1.55 – 3.76	<.0001
Help with stopping drug or alcohol use	57	5.5	73	1.7	<.0001	2.83	1.74 – 4.61	<.0001
A long-term health condition, e.g. asthma	63	6.1	129	2.9	<.0001	1.72	1.13 – 2.64	0.01
A condition that does not last very long, e.g. a cold	92	8.8	266	6.0	0.0024	1.39	1.01 – 1.90	0.04
Contraception/sexual health	50	4.9	212	4.8	0.9412	0.92	0.60 – 1.39	0.69
An emotional worry	83	8.1	388	8.7	0.4888	0.84	0.66 – 1.07	0.16
Pregnancy or pregnancy test	48	4.7	103	2.3	<.0001	1.56	1.03 – 2.34	0.03

* controlling for sex, age & SES.

Table 4. Pacific and NZ European students' reasons for not accessing healthcare when needed (*n*=903)

Variables	Pacific		NZ European					
	n	%	n	%	p-value	Adjusted Relative Risk*	CI	p-value*
Didn't know how	82	28.8	107	17.4	<.0001	1.34	1.03 – 1.75	0.03
Couldn't get an appointment	77	27.1	136	22.0	0.0742	1.14	0.89 – 1.47	0.31
Didn't want to make a fuss	146	51.2	344	55.7	0.2776	0.96	0.81 – 1.13	0.59
Couldn't be bothered	133	46.7	211	34.4	<.0001	1.29	1.06 – 1.56	0.01
Had no transport to get there	85	29.8	168	27.3	0.3956	1.02	0.79 – 1.31	0.91
Cost too much	75	26.4	209	33.9	0.0330	0.75	0.57 – 0.99	0.04
Couldn't contact the health professional	37	13.0	47	7.7	0.0004	1.19	0.73 – 1.94	0.48
Didn't feel comfortable with the person	63	22.1	136	22.0	0.9881	1.03	0.75 – 1.40	0.88
Too scared	94	33.0	187	30.3	0.4432	1.03	0.80 – 1.32	0.82
Worried it wouldn't be kept private	85	29.8	173	28.1	0.5920	1.02	0.81 – 1.30	0.85

* controlling for sex, age & SES.

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After controlling for age, sex and socioeconomic deprivation, Pacific students were almost three times more likely to report difficulty accessing health care for help stopping drug or alcohol use than NZ European students. Difficulty getting help for stopping smoking or acute injuries or accidents was over two times more prevalent among Pacific youth than compared to NZ European young people.

Factors impacting on health care access—Students who reported foregone healthcare were asked a further question on reasons for not accessing healthcare when needed. Table 4 reports the reasons Pacific and NZ European students chose for not accessing healthcare. Of the eight possible choices, three reasons for foregone healthcare, was rated significantly higher by Pacific students than NZ European students. Pacific students did not access healthcare because they "didn't know how"; they "couldn't be bothered"; and because they "couldn't contact the health professional".

The data from the question on interactions with health professionals (Table 2) revealed that one in ten Pacific students (10.5%) reported unfair treatment by a health professional due to their ethnicity, compared to 2.2% of NZ European students. Pacific youth who reported unfair treatment by a health professional due to their ethnicity, were 3.18 (95% CI = 2.68–3.78, $p < 0.001$) times more likely to report forgone healthcare compared to students who did not report unfair treatment by a health professional due to their ethnicity, after controlling for age, sex, socioeconomic deprivation and ethnicity.

Discussion

The results of this study add to previous research, which shows that Pacific peoples experience barriers in access and use of services across New Zealand's health and disability system.[14–17]

Barriers to healthcare, which can be classed as financial, cultural, logistical, physical, linguistic or systems discrimination are key reasons that Pacific peoples are not benefiting from health services to the same extent as other groups.[5,18] Previous studies however have primarily concentrated on Pacific adult experiences and perspectives.

This study makes a contribution as it is the first indepth study exploring the health care experiences of Pacific young people, (secondary school aged 13–17 years), and whereby this cohort are a significant proportion of the Pacific population grouping in New Zealand, the ongoing monitoring of Pacific youth health experiences is important for the sector to note.

The differences in socioeconomic status between Pacific youth and their NZ European peers makes Pacific young people particularly at-risk of preventable health conditions. This over-exposure to upstream conditions leading to adverse health risks,[16] which has led to inequitable health at all life stages for Pacific people in New Zealand,[4] would lead one to expect that Pacific young people would be accessing healthcare more frequently as needed, compared to other groups.

Results of this study showed that despite the relative increased need for health services, Pacific young people are foregoing much needed health care.

In addition, Pacific young people had difficulty seeking healthcare for most types of health issues, especially for acute injuries and accidents and needing help to stop

substance use, i.e. smoking tobacco and using alcohol or drugs. This may be highlighting the lack of accessible primary care and inadequate reach of quit-smoking, alcohol and drug-use recovery programmes for Pacific youth.

This study found also large discrepancies in dental health care access, with a third (32.6%), or one in three Pacific students not accessing dental care in the previous year. This clearly requires some urgent action to ensure that all types of health services, particularly those that screen and prevent further intensive and potentially more expensive public health care, are equitable for all of New Zealand's young people.

This study found the main barriers for healthcare access was not knowing how to access healthcare when needed and being treated unfairly by a health professional due to ethnicity. This study provides important information for developing more responsive health services for young Pacific New Zealanders. Modifying health promotion to better target Pacific youth and more urgent structured training of health professionals in culturally-competent care and specialist adolescent health training are relevant interventions.

Selected District Health Boards have consulted their respective young people on ways to improve their health and wellbeing.[19,20] This study supports the priorities of the Ministry of Health to support innovative primary and community-based services for Pacific young people, namely the establishment of youth friendly services such as youth one-stop-shops and the effective school-based health services in low decile secondary schools,[21] teen parent units and alternative education settings.

Theorists on health seeking behaviours have confirmed the way in which ethnicity intersects with healthcare interactions.[22,23] Overseas studies have noted that diverse populations seek preferential treatment from healthcare professionals who are of the same ethnic group.[24,25]

It is hypothesised that greater concordance between the health care professional's cultural and linguistic competencies to the patient, results in greater quality and satisfaction in care.[26,27] This has led for calls in healthcare systems to match their health workforce diversity to its population diversity.[24,25,28] The continued efforts in the development of the Pacific health workforce will contribute to more responsive health services for Pacific peoples.

The large relative risk scores attests that for Pacific youth, ethnic discrimination can be a significant barrier to healthcare access.[29] Previous research have confirmed the importance of health provider behaviours in adolescent's decisions to seek health care.[30] It is recommended that research that elicit young people's perspectives on how to counter perceived discrimination in health care settings may be valuable for the New Zealand context.[31]

Primary HealthCare is the pivotal point of entry for health services. There is a need for Primary HealthCare to make itself more user-friendly and developmentally appropriate for young people. This is an age group which has hitherto been ignored by Primary Care in its design and funding priorities. Pacific young people are an increasingly numerous and important part of Pacific and New Zealand communities and should now be one of the most important considerations in the design of Primary Care and the training of its workforce.

Competing interests: Nil.

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