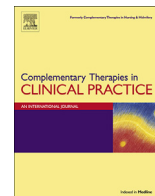




Contents lists available at ScienceDirect

# Complementary Therapies in Clinical Practice

journal homepage: [www.elsevier.com/locate/ctcp](http://www.elsevier.com/locate/ctcp)

## Health literacy screening of patients attending a student-led osteopathy clinic: A pilot investigation

Brett Vaughan<sup>a, b, \*</sup>, Jane Mulcahy<sup>a</sup>, Kylie Fitzgerald<sup>a</sup><sup>a</sup> College of Health & Biomedicine, Victoria University, Melbourne, Australia<sup>b</sup> Institute for Sport, Exercise and Active Living, Victoria University, Melbourne, Australia

### ARTICLE INFO

#### Article history:

Received 27 April 2016

Accepted 6 May 2016

#### Keywords:

Evaluation

Osteopathic medicine

Regression analysis

### ABSTRACT

Adequate levels of health literacy (HL) are required for patients to access appropriate health services and develop an understanding of the options for managing their healthcare needs. There is limited literature on HL of patients seeking care for a musculoskeletal complaint. The present study sought to screen the HL of patients presenting to an Australian osteopathy student-led clinic using a single screening question 'Are you confident completing medical forms?'. Less than 10% of patients attending the clinic were considered to have below adequate levels of HL using this question, consistent with other work in Australian populations. Logistic regression analysis identified that the most significant demographic variables associated with lower HL were patients who did not speak English at home, those with lower education levels, and those who were less satisfied with their life. Evaluation of a patients' HL may assist practitioners to improve patient education and management strategies.

Crown Copyright © 2016 Published by Elsevier Ltd. All rights reserved.

### 1. Introduction

Health literacy may be defined as the knowledge and skills required to understand and use information relating to health issues [1]. Adequate health literacy has been found to better inform a person's decisions on seeking and obtaining appropriate health care [2]. Low health literacy has been associated with a range of adverse health outcomes. These include increased hospitalisation rates, increased use of emergency care facilities, inappropriate medication usage, increased risk of adverse outcome, low compliance with Australian health screening programs and limited ability to interpret public health messages [3,4]. Level of education (high school or less), non-English speaking background and older age have been shown to be related to low levels of health literacy [5]. Estimates of self-reported health literacy in the Australian population have found that 59% have a below adequate level of HL [1]. This data suggests low health literacy is a public health concern in Australia for patients, health practitioners and the health system.

Australian osteopaths are primary contact health professionals who predominantly manage patients with musculoskeletal complaints using a variety of interventions including manual therapy,

exercise rehabilitation and health advice. The majority of people seeking care from an osteopath in Australia are self-referred on recommendation from family/friends, from advertising, or by referral from another health professional [6–8]. A referral from a medical practitioner is not required to visit an osteopath in Australia, and a small number of patients would be referred to an osteopath by a medical professional [8]. Given the primary contact nature of osteopathy practice, and previous research suggesting health literacy is related to outcomes for musculoskeletal disorders [2,9–11], it is important to explore levels of health literacy of patients seeking osteopathy treatment. The present study sought to evaluate demographic influences on self-reported health literacy in patients attending an Australian student-led osteopathy clinic.

### 2. Method

The study was approved by the Victoria University (VU) Human Research Ethics Committee. All new patients 18 years of age or over attending the VU Osteopathy Clinic (a university teaching clinic) during the period April–October 2015 were invited to complete a health information form prior to their consultation. This form asked about a variety of health-related information relevant to health literacy and Australian population health [12]. Health literacy was evaluated using a single item 'How confident are you completing medical forms?' with a response scale 'Extremely confident' to 'Not at all confident'. This item has previously been demonstrated to be

\* Corresponding author. College of Health & Biomedicine, Flinders Lane Campus, Victoria University, PO Box 14428, Melbourne, VIC 8001, Australia.

E-mail address: [brett.vaughan@vu.edu.au](mailto:brett.vaughan@vu.edu.au) (B. Vaughan).

an appropriate screen of health literacy in United States health consumers [13,14]. Demographic data were also extracted from the patient details form completed prior to the consultation.

Data were entered into SPSS (version 21) then exported to R [15] for analysis. Descriptive statistics were generated using the *psych* package [16] in R. Ordinal logistic regression was used to evaluate the relationship between the health literacy item as the dependent variable, the other health information and demographic variables. Backward stepwise regression using the Akaike information criterion (AIC) as the cutoff was used to develop the model. This was performed using the *rms* package [17] in R. Coefficients for factors in the final model were converted to odds ratios and interpreted as per Hopkins [18].

### 3. Results

Data from 508 patients were available for the analysis representing a 70.0% response rate. Mean age was 22.62 years ( $\pm 13.84$  years). Demographic variables are presented in Table 1 and the health literacy screening question “Are you confident completing medical forms?” is presented in Fig. 1.

Logistic regression analysis identified a number of relationships between self-reported health literacy and the demographic variables (Table 2). The odds ratios for each demographic variable and its relationship with self-reported health literacy were *small*.

**Table 1**  
Demographic variables.

<b>Gender</b>	
Male	205 (40.4%)
Female	302 (59.4%)
<b>Born in Australia</b>	
Yes	329 (64.8%)
No	176 (34.6%)
<b>Speak English at Home</b>	
Yes	462 (90.9%)
No	46 (9.1%)
<b>Live alone</b>	
Yes	55 (10.8%)
No	432 (85.0%)
<b>Private health insurance</b>	
Yes	249 (49.0%)
No	252 (49.6%)
<b>Smoking</b>	
Yes	67 (13.2%)
No	420 (82.7%)
<b>Highest level of education attended</b>	
Primary	6 (1.2%)
High school (not complete)	34 (6.7%)
High school (complete)	59 (11.6%)
TAFE/Trade	83 (16.3%)
University	321 (63.2%)
<b>Hours of sleep per night (median)</b>	7–8 h
<b>Serves of fruit each day (median)</b>	2 (range 0–6 serves)
<b>Serves of vegetables each day (median)</b>	3 (range 0–7 serves)
<b>Exercise per day (median)</b>	30–60 min
<b>Blood pressure checked in last 6 months</b>	
Yes	310 (61%)
No	197 (38.8%)
<b>Skin cancer check in last 6 months</b>	
Yes	66 (13%)
No	440 (86.6%)
<b>Healthcare card</b>	
Yes	206 (40.6%)
No	292 (57.5%)
<b>General health (median)</b>	3 (range 1–5)
<b>Satisfaction with life (median)</b>	4 (range 1–5)
<b>Clinic</b>	
Melbourne city	426 (83.9%)
St Albans	81 (15.9%)

Note: percentages that do not add to 100% represent missing data.

### 4. Conclusion

Slightly less than 10% of the new patients presenting to an Australian student-led osteopathy clinic self-reported being *some-what confident* or less completing medical forms. This level was taken as having below adequate levels of health literacy and is relatively consistent with reported health data in a Victorian population [19]. The population of patients attending the student-led osteopathy clinic appears to demonstrate a higher level of health literacy compared to data from the general Australian population. Australian Bureau of Statistics data shows approximately 59% of the Australian population were below the minimum level for health literacy), and Adams et al. [20] reported approximately 45% of their Australian study population had limited health literacy. Whilst the present study used a single item question and was therefore different to that in the aforementioned studies, the patient population in the student-led osteopathy clinic appears to have significantly higher health literacy than the Australian population. The “... low visibility [of osteopathy compared] with other health professionals ...” [8] suggests that patients with higher levels of health literacy may be more likely to access osteopathy services. That is, they have an understanding of how an osteopath may be able to assist with their musculoskeletal health complaint.

Not speaking English at home was the greatest predictor of health literacy in this patient population (odds ratio = 2.66, *small*). This is consistent with Australian Bureau of Statistics [1] data and work by Beauchamp [21] in a Victorian chronic pain population. The latter authors demonstrated that Health Literacy Questionnaire factor scores were lower for those who did not speak English at home, with small to large effect sizes. This result suggests practitioners need to be mindful of a patients' English language skills when explaining the management plan and obtaining consent [22].

Fruit and vegetable intake was also associated with self-reported health literacy. Patients who had higher vegetable intake reported higher health literacy scores and this relationship has been identified in previous research [23]. The converse was observed for fruit intake however. The lack of consistent results for self-reporting fruit/vegetable consumption potentially highlights an issue where patients report expected rather than real intake [24]. The odds ratios reported in the present study are the smallest of the significant coefficients suggesting that fruit and vegetable intake has a small relationship with health literacy in patient's seeking osteopathy care in a student-led clinic.

The present study is one of the first to investigate the relationship between self-reported health literacy and satisfaction with life. A positive association was observed between these two variables albeit the odds ratio was *small* (odds ratio = 1.53). Other studies have demonstrated associations between life satisfaction and self-reported general health [25], and the small odds ratio observed in the present study requires further investigation with other tools used to evaluate health literacy [26]. Previous Australian research has identified that self-reported general health status was associated with lower levels of health literacy [1]. This was not observed in the current study and may, in part, be accounted for by the lower mean age of patients attending the clinics. The median for this item was in the middle of the 1–5 Likert-type scale. Barber, Staples [19] also demonstrated associations between age, gender and health literacy. Females and younger persons were reported to demonstrate higher health literacy, however this was not observed in the present study.

Possessing private health insurance was associated with higher levels of health literacy (odds ratio = 1.66, *small*). Beauchamp [21] demonstrated that those patients with health insurance had higher scores on the Health Literacy Questionnaire ‘*Actively managing my health*’ and ‘*Social support for health*’ factors although the effect

Download English Version:

<https://daneshyari.com/en/article/2628321>

Download Persian Version:

<https://daneshyari.com/article/2628321>

[Daneshyari.com](https://daneshyari.com)