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Can poor health literacy contribute to potential side effects associated with buying over-the-counter non-steroidal anti-inflammatory drugs?

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Can poor health literacy contribute to potential side effects associated with buying over-the-counter non-steroidal anti-inflammatory drugs?

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Can health literacy contribute to potential side effects associated with buying over-the-counter Non-Steroidal Anti-inflammatory Drugs (NSAIDs)?

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Introduction

Many Australians purchase over-the-counter (OTC) Non-Steroidal Anti-inflammatory Drugs (NSAIDs)¹.

If not taken appropriately, these medications can cause severe adverse events such as gastro-intestinal bleeds and kidney-related problems ^{2,3}.

Aims

To explore possible associations between health literacy and comprehension of the product information on the packaging of two NSAIDs commonly purchased OTC in Australia: *Nurofen*TM and *NurofenPlus*TM.



Methods

Customers (over the age of 18 years) purchasing OTC *Nurofen*TM or *NurofenPlus*TM from seven different Australian community pharmacies (in different socio-economic areas) were asked to complete an anonymous survey between January and August 2013.

The survey questions specifically focused on the participants' use of the NSAIDs, their health literacy level and their understanding of the medication, dosage and potential side effects.

Results

262 participants (80 males, 180 females and 2 unknown)

Participants varied in age (Table 1) and education levels (Figure 1). However they had relatively high health literacy levels (Figure 2).

Table 1: Age Range of Participants

Age Range of Participants	Number of Participants (%)
<19 years	6 (2.3%)
20-39 years	89 (34%)
40-59 years	93 (35.5%)
60-79 years	67 (25.6%)
> 79 years	7 (2.6%)
Total	262 (100%)

Figure 1: Education levels of Participants

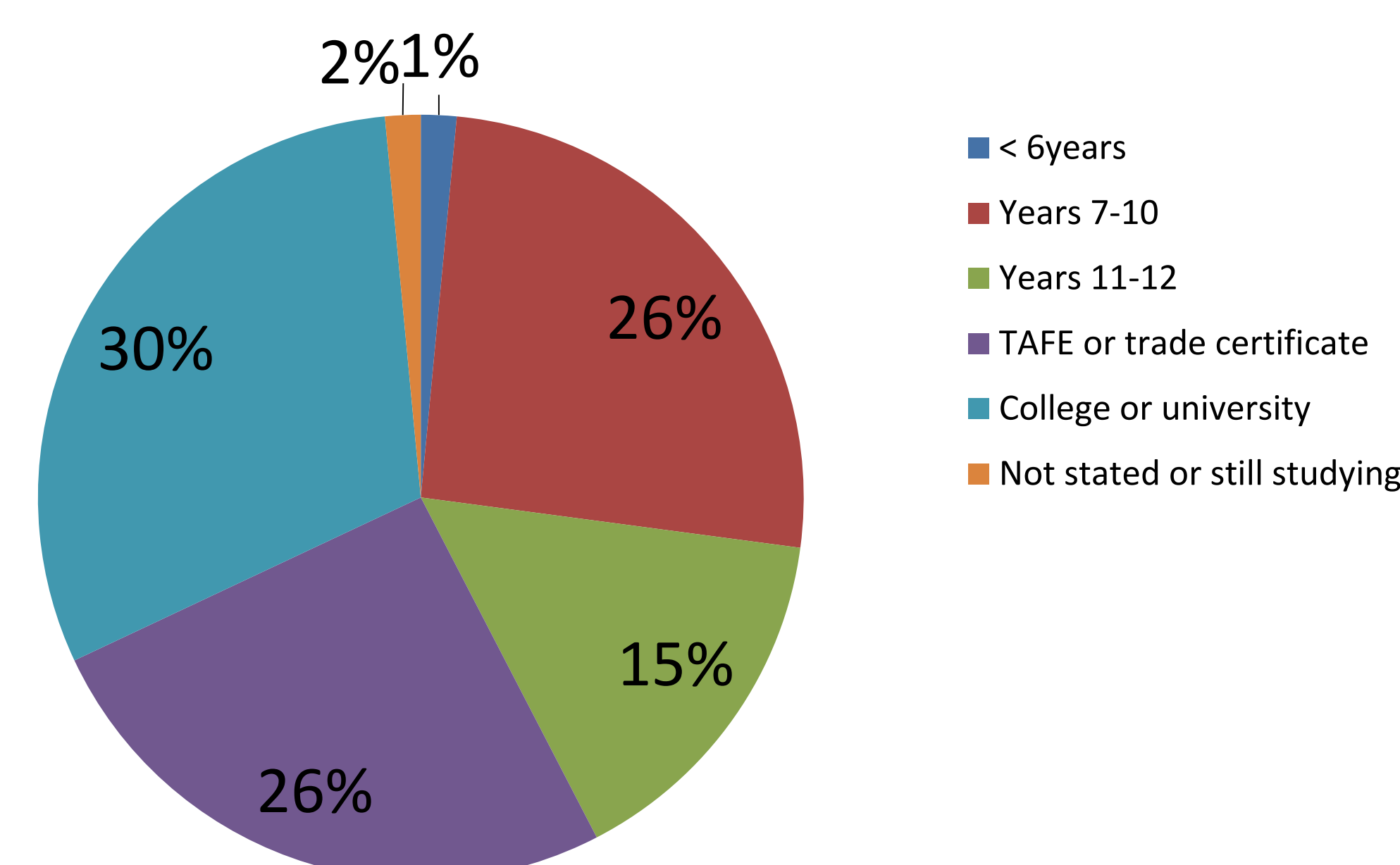
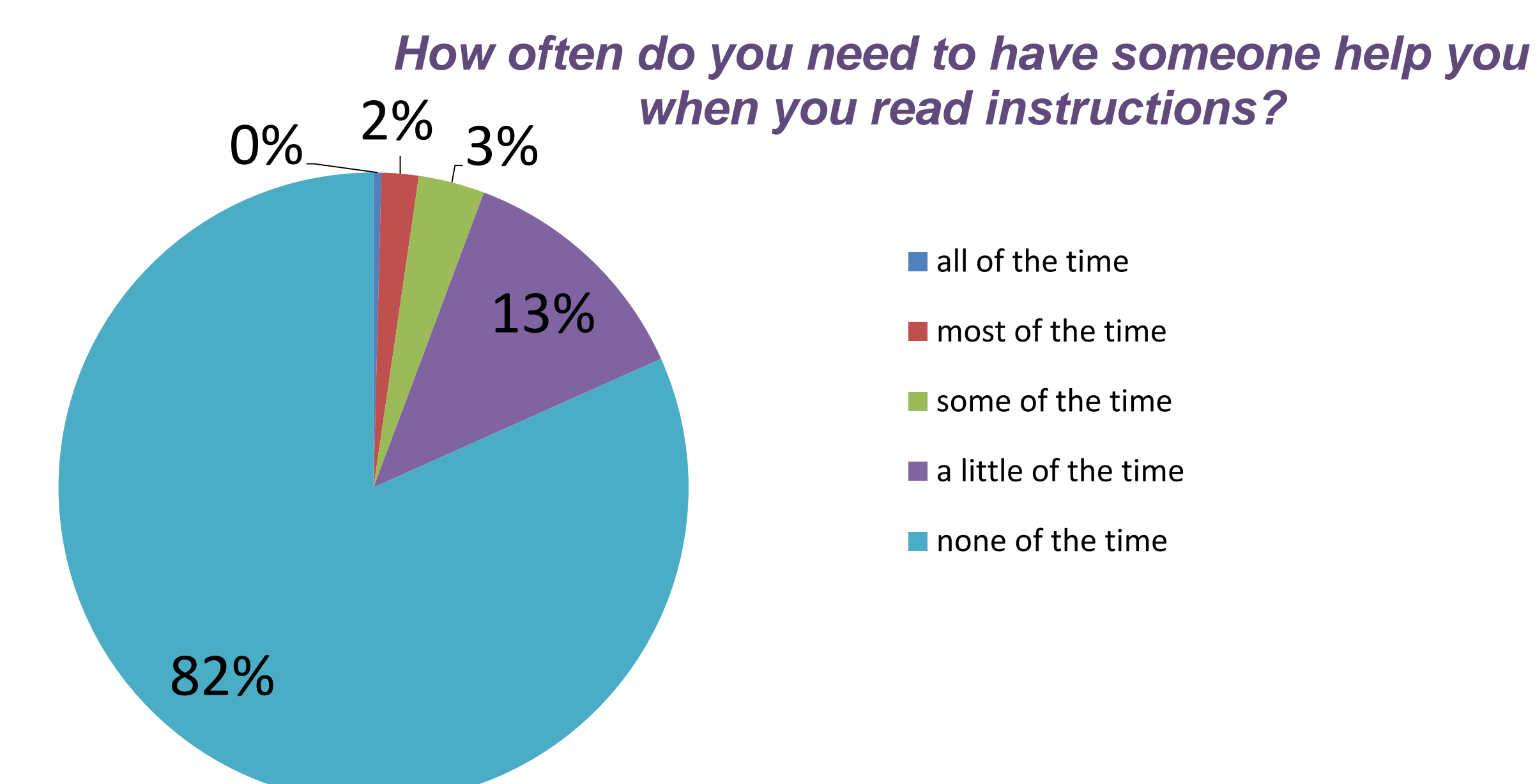


Figure 2: Health literacy levels of participants



Irrespective of their 'adequate' to 'high' health literacy levels, at least 30% could not accurately identify the recommended daily dosage schedule, the active ingredients and the potential side effects associated with the OTC medications (Table 1).

Table 1: Survey Responses from Participants with 'Adequate' to 'High' Health Literacy Levels

Response to Survey Question	Correct	Incorrect or missing
Dosage		
Maximum daily dose	67.7%	32.3%
Dosage schedule	16%	84%
Active ingredient		
Aspirin is an active ingredient	60.1%	39.9%
Ibuprofen is an active ingredient	82.9%	17.1%
Potential side effects		
Stomach bleeding	52%	48%
Kidney problems	43.6%	56.47%

Conclusion

Customers purchasing OTC NSAIDs should be counselled about the recommended dosage schedule, the active ingredients and potential side effects associated with not taking these medication appropriately.