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# **Adolescents' consumer socialization of over-the-counter medicines: A proposed model and some preliminary findings.**

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## **Abstract**

There has been a considerable amount of research on consumer socialisation over the past three decades. However, the marketing literature has not yet looked at adolescents as consumers of over-the-counter (OTC) medicines, despite the frequency and the potential problems of product usage in this market segment. This paper proposes a model to specifically address how adolescents learn to become consumers of OTC medicines and presents preliminary findings.

## **Introduction**

The use of OTC medicines is common from young age (Dengler and Roberts, 1996; Chambers, Reid, McGrath and Finley, 1997; Ellen, Bone and Stuart, 1998; Lam and Shek, 2006). These type of drugs, easily available to potential consumers, may result in problems if used in higher dosages than recommended, in combination with other drugs, or when based on an incorrect self-diagnosis. Young consumers may lack the ability to judge the potential benefits and risks which may result in damaging and fatal injuries, while some intentionally use the medicines for recreational purposes.

Generally, teenagers are less familiar and have less experience with products as compared to older consumers (Tamara, Dhruv and Terry, 1997). The teenage years are also viewed as the most critical phase for the acquisition of consumption-related orientations, both desirable and undesirable (Moschis and Cox, 1989). This age group may be less capable in making decisions than adults because they may fail to take into consideration the longer term implications of their decision and behaviour (Elkind, 1967 cited in Schroder 2003). Besides, the consumption-related knowledge learned in early life may be carry over to adulthood. It is thus important to understand how those in this age group learn to become consumers of OTCs, not only to make better consumer decisions at present but also in their future consumer roles.

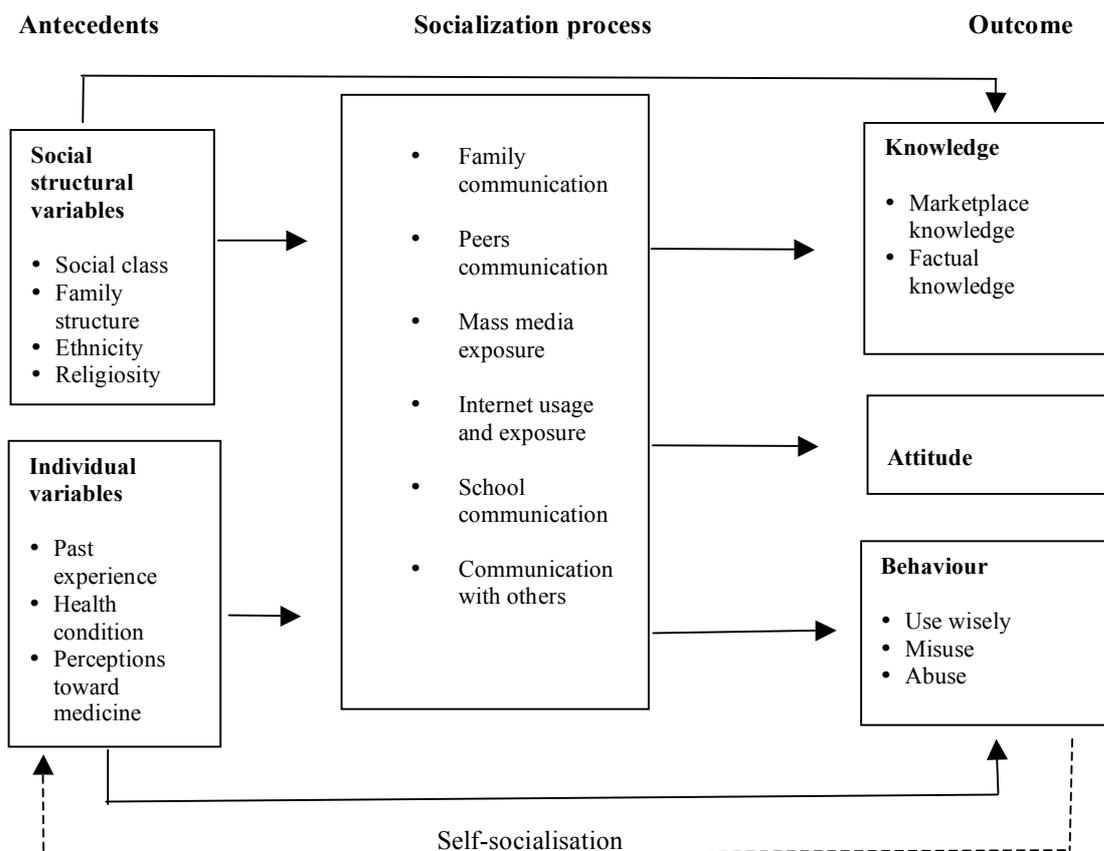
To investigate these issues, a consumer socialisation perspective was employed. This perspective was chosen as the conceptual framework to study adolescents' knowledge development, attitudes and behaviour towards over-the-counter medicines because it can provide an exhaustive explanation to the subjects being studied. Consumer socialisation is a process by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in marketplace (Ward, 1974). Previous research on consumer socialisation has adopted two schools of thoughts as how consumers are socialized, the cognitive developmental model and the social learning model. The cognitive developmental model suggests socialisation is a function of qualitative changes in cognitive development occurring between infancy and adulthood. In contrast, the social learning model emphasizes the formation of consumer knowledge, skills and behaviours as a function of interactions between socialisation agents i.e. a person or organization directly involved in socialisation because of frequent contact with the individual, and the learner in various social settings (Moschis, 1987).

## Conceptual Framework

The conceptual framework of this study is drawn from the Moschis and Churchill (1978) consumer socialisation model which combines both models of human learning. A revised version is presented in Figure 1. The model proposes social and individual backgrounds are antecedents to adolescents' socialisation processes relevant to OTCs. Social cultural variables include social class, family structure, ethnicity and religiosity, while individual variables include past experience, health condition and perceptions about medicines in general. These antecedents are expected to influence adolescents' knowledge, attitudes and behaviours regarding OTCs directly or indirectly through a socialisation process. Socialisation processes proposed in this model which is expected to effect adolescents' knowledge, attitudes and behaviour towards OTC are communication with family, communication with peers, exposure to mass media, use of the internet, communication from school and communication with other people thought to be relevant to the consumption of medicines. As a result of the socialisation processes, adolescents "self-socialise" themselves and this will in turn add to their experience and perception towards OTC.

In this study, OTC is defined as medications which may be obtained legally without a medical practitioner's prescription and did not refer to any specific medicines.

**Figure 1: A conceptualization model of adolescents' consumer socialisation of OTC medicines**



### Antecedent variables

- Social class – Previous studies in OTC medicines found that not only the frequency of use differs between social classes, but the type of condition that OTCs are used for differs

(Hussin, 1999; Holstein, Hansen and Due, 2004). Social class is conceptualized as parents' occupation, parents' education level and pocket money that adolescents spend a week.

- Family structure – Family structure was found to affect adolescents' behaviour (Moschis, Cox and Kellaris, 1987; Neeley, 2005). Respondents were asked "Who do you live with?"
- Ethnicity – Different cultures exhibit different norms and values. Therefore the content and sources of learning experience are expected to differ across cultures (Moschis, 1987).
- Religiosity – Highly religious individuals are expected to exhibit strong commitment to their faith and thus are likely to behave according to the norms supported by their religion. However, few previous studies can be found which explore the effect of religiosity on consumer socialisation and OTCs. Measures of religiosity were adapted from previous studies & modified to suit the current study.
- Past experience – Teenagers may have experienced the use of OTC medicines since they were young. Respondents were asked if they ever used the medicines, why they took them, where they purchase and/or obtained them, whether they read the label and how carefully they read the label. Multi-option variables were used to measure why they took OTCs and where they purchased and/or obtained them.
- Health condition – Health condition is expected to influence the learning process (Hudson and Brown, 1983). Respondents were asked how they describe their health on a scale from 1 (poor) to 10 (excellent), and how many times they have been ill over the past 12 months.

### **Socialisation Process**

- Family communication – The ways that families communicate affects adolescents' learning (Palan, 1998; Mangleburg and Bristol, 1998; Rafeedie *et al*, 2006). Measures of family communication were adapted from previous studies such as Moschis (1987) and Mangleburg and Bristol (1998) and modified, where specific statements were asked about adolescents and their interactions with family with regards to OTCs.
- Peer communication – Researches have found a strong correlation between consumer socialisation and peer influence (Moschis and Churchill, 1987; Bush, Smith and Martin, 1999). Measures adapted from previous studies were modified to specifically address adolescents' socialisation of OTC medicines with respect to their peers.
- Mass media exposure – OTC medicines are promoted through television, radio and print advertisements. Adolescents heavily exposed to these advertisements have a higher likelihood to believe the efficacy of the medicines and use them (Atkin, 1978; Burak and Damico, 2000). Respondents were asked to indicate the media they would use if they were to get information about OTC.
- Internet exposure and usage – Despite high usage of the internet by adolescents, little is known about the effects of internet on consumer socialisation (John, 1999). Furthermore, information about the use of OTC medicines for "on-label" and "off-label" purposes are widely available on the internet. Respondents were asked if they would go to internet for information, where they access the internet and how much time a day they spent on the internet.
- Communication from school - Only a few studies have investigated the effects of school as an agent in the socialisation processes (Moschis, 1987; Kamarudin and Mokhlis, 2003), though teenagers spend most of their time in school. Measures were developed to investigate if school has anything to do with adolescents learning of OTC medicines.
- Communication with others – Communication with others i.e. pharmacist, doctors, nurse and salesperson were asked. Respondents were also asked to indicate if they remember the type of information they asked.

## Knowledge

- Knowledge is divided into knowledge about the marketplace and factual knowledge about OTC medicines. Measures were adapted from Moore *et al* (2002) and modified to suit the study.
- Attitude – Attitude is included as it is one of the important concepts marketers use to understand consumers (Peter and Olson, 1999).
- Behaviour – There are three possible ways in which adolescents might use OTC medicines i.e. use wisely to make them feel better (Holstein, Hansen and Due, 2004), misuse and abuse (Ellen *et al*, 1998; Lam and Shek, 2006). Scenarios were used to measure behaviour.

## Methodology

The study was undertaken at four randomly selected high schools in Christchurch, New Zealand with total respondents of 305 teenagers. Classroom administration was chosen as a method for data collection to avoid delay or unreturned questionnaires. Furthermore, the researcher was able to personally inform students about the purpose of the study and give clarification of the questionnaire should the students not understand.

Measures were developed to assess the variables noted above. In addition, some of the measures utilised by previous studies were revised to make them more appropriate for this study and suitable for the selected population. The draft questionnaire was pre-tested and amended, where necessary, prior to actual data collection.

## Findings

This paper only presents preliminary findings from the proposed model. With this proviso, this paper limits the certainty of conclusions about associations between antecedent, socialisation and outcome variables. The paper will only provide a descriptive analysis of these variables.

A total of 305 high school students ages 15 to 18 years old participated in the study of which 126 (42%) were male and 177 (57.2%) female, another two did not indicate their gender. 274 adolescents (92%) have used OTC medicines where 152 (51%) adolescents indicated they had purchased OTC medicines from a pharmacy, 23 (8%) adolescents had purchased from convenience store, 147 (42%) purchased from a supermarket, while 87 (29%) never purchased themselves. Adolescents also obtained the product from family (226, 75%) respondents and from friends (34,11%) respondents.

In respect to reading the label for information about the product, 213 (71%) adolescents indicated that they do read the label. However, how carefully they read the label varies. Table 1 presents details of the label reading item in a scale from 0 (brief scan) to 5 (every word).

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Missing</b>
12 (4%)	25 (8.3)	41 (13.7%)	57 (19%)	39 (13%)	38 (12.7%)	2 (0.7%)

In relation to family socialisation, 263 (88%) adolescents indicated that their family is open to suggestions about things to buy. While most adolescents (214, 71%) ask for family opinion if they were not sure about OTC medicines, most respondents i.e. 268 (88%) did not indicate

there was a problem with family members' opposed to the teen buying an OTC for themselves. Forty-one (14%) adolescents indicated that their family said there are some things that shouldn't be talked about. One hundred and five adolescents (35%) said if they wanted to discuss about OTC their family will suggest that they ask a pharmacist or doctor. Only a small number of adolescents (87, 29%) indicated they have discussed the benefits of OTC medicines, the negative effects (95, 32%), and misuse and abuse of OTC medicines with their family (106, 35%).

With respect to socialisation with peers, 240 (78%) adolescents indicated that peer approval of their purchases is not important but 102 (34%) adolescents said they would buy OTC based on peer recommendation. Only 67 (22.3%) adolescents said their peers told them information about OTC but a higher number of adolescents, 105 (35%) indicated that their peers told them the OTC that they were taking. Though 116 (39%) revealed would asked their peers if they don't have experience with OTC, only 47 (16%) said they talked more about OTC with peers than family. One hundred eighty-four (61%) adolescents had borrowed an OTC from peers but only 41 (14%) said their peers told them how to misuse OTC.

With regard to mass media and the internet, respondents were asked to indicate the media that they would use if they wanted to get information about OTCs. Most adolescents, (217, 72%) would go to the internet, followed by TV programs about health/medicines (80, 27%) adolescents and TV advertisements (77, 26%). This is followed by articles in magazines (53, 18%), TV news (42, 16%) and magazines advertisement (34, 11%). Only a small number of adolescents would go to newspaper news (25, 8%), newspaper advertisements (17, 5.7%) and radio news (12, 4%) adolescents.

Though not sizeable, school was also found to support adolescents' socialisation with OTC. Fifty-one (17%) adolescents indicated that the topic of OTC is taught in school, while 69 (23%) respondents said they remember seeing information about OTCs in school. Only 20 (7%) respondents said they had a speaker invited to talk about OTCs in school. A considerable number of respondents (211, 70%) said their teachers had talked about illegal drugs but not legal drugs.

Forty (13%) adolescents said they have asked a salesperson's opinion and 138 (46%) respondents have asked pharmacist if they are not sure about an OTC medicine. A total of 95 (32%) respondents never have asked anybody's opinion.

### **Conclusion**

Preliminary findings reported here suggest that adolescents are socialised via family, peers, mass media, internet, school and salesperson/pharmacist in learning to become consumers of OTC medicines. However, socialisation agents such as school, and salespeople were not found to play major roles in the process. The next stage is to conduct further analysis to confirm the proposed model. Besides enriching the marketing literature by providing empirical evidence on consumer socialisation and OTCs, the findings would also assist policy makers in designing campaigns and educational programs to address issues of OTC and assist pharmaceutical marketers to formulate appropriate marketing strategies that have the most influence and greatest likelihood of reaching adolescents.

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