

# Attitudes and behaviours regarding sun exposure of Indian Population Data from the All Skins-All Colors-All Dermatoses

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## INTRODUCTION & OBJECTIVE

Solar ultraviolet radiation (UVR) is the most common environmental cause of the vast majority of skin disorders including skin cancer. Limited information is available regarding sun protection behaviour in patients in India. The aim of this study was to aims to investigate the level of awareness on the risks related to sun exposure, attitude towards sun protection and sun protection behaviour in Indian Population.

## MATERIAL & METHODS

A representative sample of the Indian population over the age of 16 was identified using the quota method. The questionnaire gathered information about the patients' demographic and socio-demographic profiles. The patients were asked to specify the times of exposure to the sun, the notion of knowledge of the recommendations of the public health experts who advise against exposure between 11 am & 4 pm, the reasons for which they were exposed to the sun at these times and the use or not of sun protection products. It was asked to specify the motivations given by the users and the justifications delivered by the nonusers of sun protection products.

## RESULTS

A population of 3000 was identified, including 1574 (52.5 %) males and 1426(47.5%) females, respectively (mean age 36.9+/-14.11. (16-88 years). 45.1% reported sun exposure in the morning before 11 am, and 21.6% exclusively after 4 pm. 1646 (54.9%) respondents reported that they were exposed to the sun between 11 am & 4 pm. The most frequent reason for this risk behaviour was that it corresponded to the most convenient hours for their activities (42.3%), those when they were available (31.1%). and 23.4% said these were the most pleasant hours. Only 8.1% say they don't believe prevention messages. Age less than 40 years is associated with a risk of exposure between 11 am and 4 pm (57.9% vs. 49.9%, p: <0,007) but not gender (Male 53.5% vs. Female 56.4%, p:0.11). 69.7% of the respondents declared being aware of public health experts' recommendations against exposure between 11 am and 4 pm. Respondents who exposed themselves between 11 am & 4 pm were as well informed of these recommendations as other patients (71.5% vs. 67.9%, p 0. 0,405269). Of the respondents, 2222/2786 (79.8%) used sunscreen products during the sunniest period (33.5% [n=933] every two hours). The motivation of those who use sun protection products is mainly the wish to limit the acceleration of skin aging (45.2%) and to reduce the risk of skin cancer (41.4%)( table 1). Even so, 32.4 % admit to using sun cream to spend more time in the sun. But the main reason Indians use sun protection products is to avoid sunburn (63.1%).

On the other hand, the 1853 respondents who do not apply sunscreen products (as recommended) explain mainly their behaviour by the fact that they consider that the products are too expensive (33%) and the application tedious (27.7%).

## DISCUSSION

This is the first study to assess both sun exposure risk behaviors and sunscreen use in an Indian population. Despite widespread dissemination of public health messages about the importance of sun protection almost 54.9% of Indian adults do not protect themselves from sun exposure between 11 am and 4 pm. It is interesting to note that these high-risk skin cancer patients were as well informed about sun protection recommendations as other patients. This suggests the need for an additional education program among these high-risk skin cancer patients to change their behavior. We have highlighted that the motivation of those who apply sunscreen products is mainly the wish to avoid sunburn and to protect against accelerated skin aging. It is important to pursue an effective education policy on the effective use of sun protection. More targeted methods should be developed to prevent skin cancer.

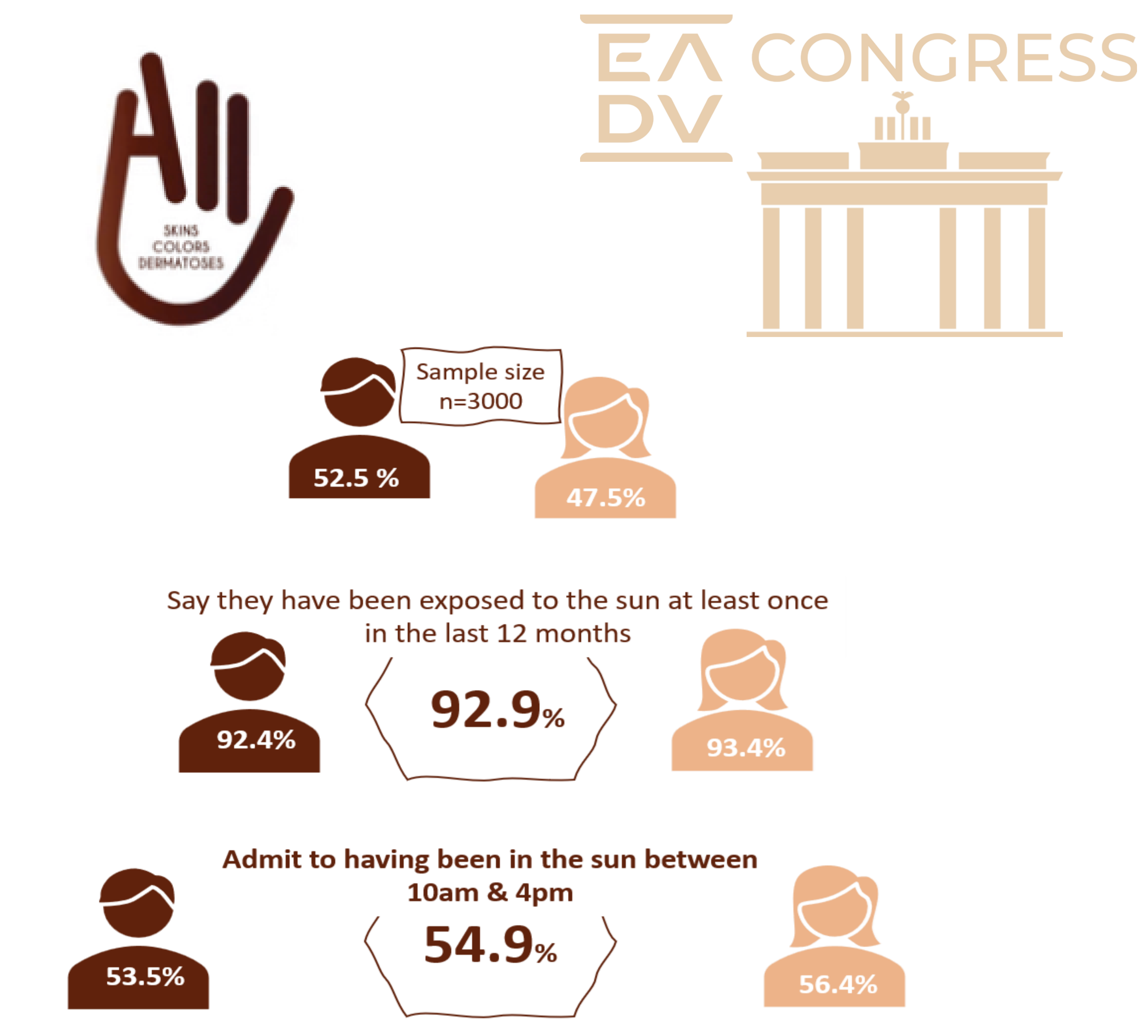


Figure 1 : Why are public health messages not respected ?

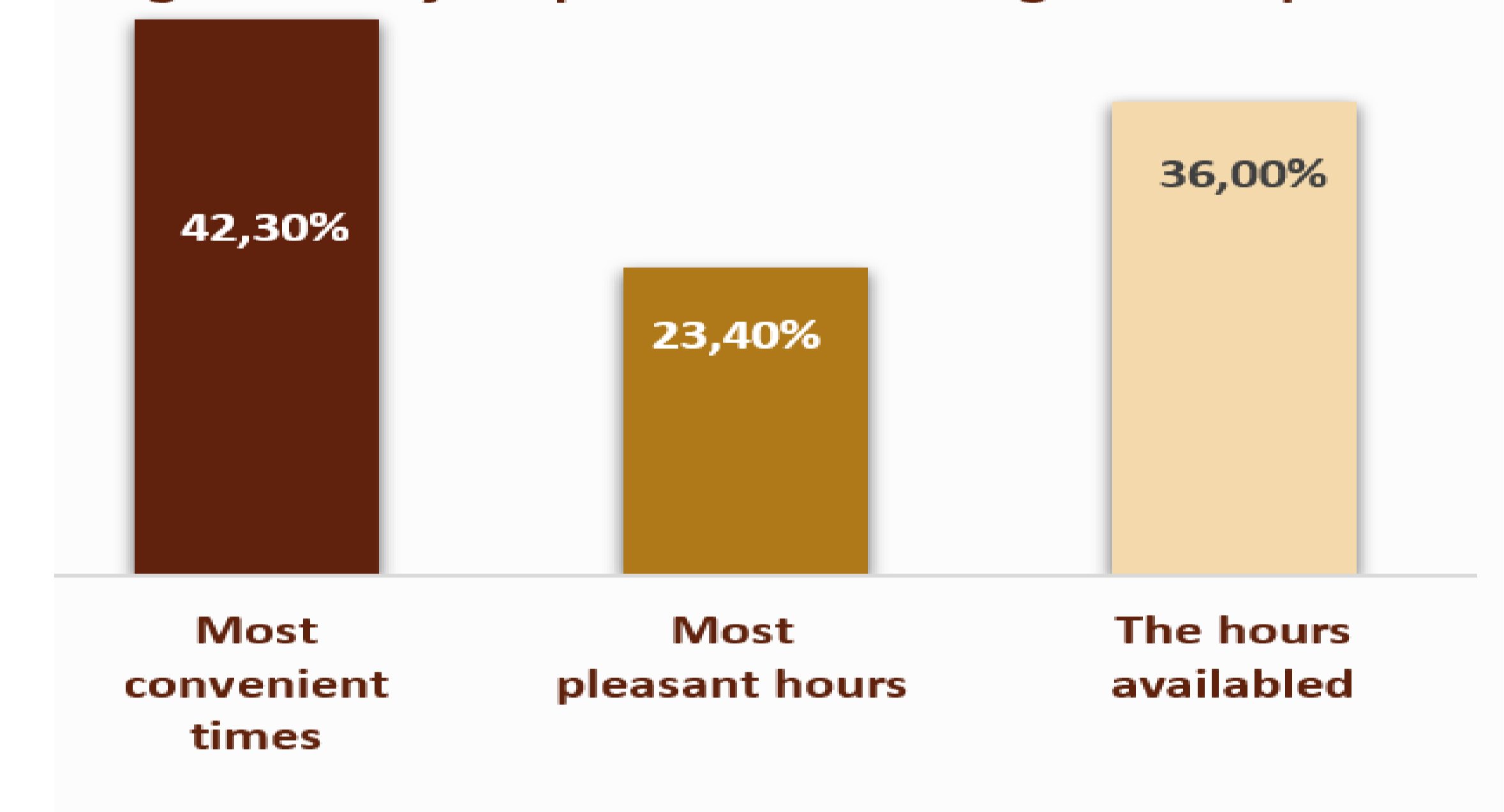


Table 1 Motivations of users and justifications of non-users of sun protection products

	Motivation	N	%
Rationale for respondents who use sunscreen products N = 2222	To avoid sunburn	1402	63,1%
	To spend more time in the sun	719	32,4%
	Because of a history of sun burns	603	27,1%
	As protection against accelerated skin aging	1004	45,2%
	As protection against the risk of skin tumors	920	41,4%
	For other reason	58	2,6%
Rationale for respondents who do not use sunscreen products as recommended N = 1853	The products are too expensive	611	33,0%
	I don't think about it	542	29,2%
	I don't think it is useful	427	23,0%
	It is too tedious	514	27,7%
	I didn't know about this recommendation	309	16,7%