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PICTORIAL WARNINGS ON CIGARETTE PACKETS: EFFECTIVENESS AND DETERRENCE AMONG EGYPTIAN YOUTH

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ABSTRACT

Placing pictorial warning messages of potential health hazards of tobacco smoking on cigarette packets is mandatory by law in Egypt. Photos of victims of heavy tobacco smoking are placed on the front and back covers of cigarette packets in an attempt to warn both users and would be users of the health risks associated with long-term smoking habits. This research aims to assess the way tobacco users in their late adolescence, perceive pictorial warnings and their ability to reduce the prevalence of cigarette smoking among youth in Egypt. Through semi-structured in-depth interviews with a sample of cigarette smokers, the research argues that various social, cultural, and economic factors constrain the effectiveness of pictorial warnings. A key finding is that in order to help reduce the prevalence of smoking among adolescents and youth, the etiology of tobacco smoking needs to be addressed instead of merely focusing on medical side-effects.

Key Words: Cigarette smoking; tobacco; pictorial warning messages; late adolescents

INTRODUCTION

Tobacco smoking among youth is a growing problem in Egypt. Statistics indicate that Egypt has the highest rate of tobacco consumption in the Arab World (El-Awa, et al., 2010; Hanafy, et al., 2010; Sitrin & Bishai, 2008; Nassar, 2003; Dous, 2001), and that most smokers are in their adolescent and late adolescent years.[1] Overall, 19.7% of the Egyptian population currently use some form of tobacco, whether in the form of cigarettes or water-pipes, commonly known as Shisha (Fouad, et al., 2013). Research emphasize that by the age of 18 years, approximately two-thirds of teenagers in Egypt have tried smoking at least once, with peak experimentation occurring between the ages of 13 and 16 years (Duncan, et al., 1995). Based on estimates from the Global Adult Tobacco Survey (CDCP, 2009, 2007), nearly 32 % of adult Egyptian males (aging 15 and older) smoke cigarettes. Despite these alarming

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indicators or all efforts made to educate youth about the harmful effects of smoking nicotine, "cigarettes are still largely considered as a legitimate drug in Egypt" (Anderson & Taylor, 2008: 185). They are publicly marketed and unless a person is under age, any tobacco user can buy them with no fear of apprehension.[2]

Recognizing the negative impact of tobacco smoking on the health and wellbeing of Egyptians, several attempts were made to deal with the issue. Three laws governing the prevention of tobacco hazards have been issued between 1981 and 2007: Law 52 of 1981, Law 85 of 2002 and Law 154 of 2007. The first tobacco control legislation was adopted in Egypt in 1981, which represented a first step in the 'battle' against nicotine. There was another attempt in 1993 to adopt legislation that banned all kinds of tobacco advertising in the country. The Control of Tobacco Product Regulations of 1993 was enacted to reduce tobacco consumption in the country, especially among youth. The regulations required the tobacco companies to have a health warning message 'Smoking is dangerous to your health' in the local language on cigarette packets (Dous, 2001). The Ministry of Health then recognized that both the message and the way it was displayed were not very effective to combat the issue, especially among adolescents (Fouad, et al., 2013). In 2002, Law 85/ 2002 included amendments to enforce Law 52/1981 concerning the written health warnings on the cigarettes packets and to totally prohibit tobacco advertisements, promotion and sponsorship. The Law also banned cigarettes or any other tobacco products' sale to minors. In 2007, a new legislation was adopted with new basic measures: the establishment of a directorate of tobacco control in the Ministry of Health; the establishment of an implementation/enforcement cell in the Ministry of Health to follow up on implementation; a total prohibition of tobacco use in public places and cancellation of designated areas, although restaurants were spared; the adoption of the principle of taxation increase as a tool for controlling tobacco; the establishment of a national coordinating mechanism, and a high national committee for tobacco control was formed that involved multisectorial representation; setting a plan of action to free Egypt from tobacco in 5 years; and the adoption of pictorial health warnings on all tobacco packets, which was implemented in August 2008.

A thorough review of the research carried out on smoking habits in Egypt elucidates that the impact of pictorial warning messages on the prevention of smoking among adolescents and youth is missing in the literature. Studies mainly concentrate on the effect of social smoking norms and smokers' educational backgrounds on the prevalence of smoking cigarettes. This discourse raises a serious concern as to how to assess the effectiveness of smoking prevention policies and measures adopted in Egypt. In a study carried out by both Sondos Islam and Carl Johnson (2005), for example, the authors came to the conclusion that adolescents' smoking behavior positively correlates with positive beliefs about smoking, siblings, parent and peer smoking, and social smoking norms. Studies also reveal that perceived adult smoking norms have a strong influence on adolescents' smoking behavior than peer smoking. The results suggest that adolescents from collectivist cultures,[4] like Egypt, are more influenced by their family's smoking behavior and perceived adult smoking norms than their

peers' smoking behavior and perceived peer smoking norms. In another study carried out by Dina Boulos, et al. (2009) to compare three groups of adult male smokers in rural Egypt: light daily and nondaily smokers versus moderate-to-heavy daily smokers, the authors came to the conclusion that statistically significant differences exist between these groups on nearly every measure: non-daily smokers tended to be younger and unmarried, but they also had higher levels of education and professional occupations compared with other smokers. Non-daily and the light daily smokers were more likely than moderate-to-heavy smokers to be planning to quit and to have self-efficacy for quitting, and were less likely to be smoking in the presence of their wives and children at home.

Although most of the studies carried out in Western societies assert the positive influence of pictorial warnings on the prevention and deterrence of cigarette smoking and proclaim that large text-based warnings usually associate with increased perceptions of risk among tobacco users (Hammond, 2012; Kees et al., 2010; Borland et al., 2009; Warren et al., 2009; White et al., 2008; Hammond et al, 2004; Portillo & Antonanzas, 2002; Borland & Hill, 1997), other studies reveal that pictorial warnings may not be that effective in preventing youth from smoking cigarettes. Daniel Romer, et al. (2013), for example, found out despite the assumption that pictorial health warnings on cigarette packets create aversive emotional reactions to smoking and induce thoughts about quitting; they do not appear to alter intentions to quit smoking. He emphasized that the warnings did not appear to enhance the likelihood that the average smoker would actually try to quit. Studies also presume that while pictorial health warnings are more effective than text warnings (Borland et al., 2009), cigarette branding is still clearly visible, and warnings take up only part of the pack. This is critical, given both the importance of health warnings in promoting negative thoughts about harmful health behaviors and eliciting behavior change (Moodie et al., 2010; Borland, 1997).

The paucity of Egyptian literature carried out on the topic to assess the efficiency of pictorial warning messages placed on cigarette packets makes it hard to assume findings similar to those found in the Western literature on the topic. Therefore, the present research would be a contribution to the literature on cigarette smoking in Egypt. This research aims to assess the way tobacco users in their late adolescence, perceive pictorial warnings and their ability to reduce the prevalence of cigarette smoking among youth in Egypt. Through intensive interviews with a sample of tobacco users, the research argues that various social, cultural, and economic factors constrain the effectiveness of pictorial warnings. A key finding is that in order to help reduce the prevalence of smoking among adolescents and youth, instead of merely focusing on medical side-effects, the etiology of tobacco smoking needs to be addressed. The article is divided into three sections. The first section refers to the research methods used in the present research. The second section discusses the reasons that often lead adolescents and youth to smoke cigarettes in Egypt. The third section deals with the sample's perception of pictorial warnings placed on cigarette packets, followed by a brief discussion of findings and concluding remarks.

METHOD

Through semi-structured interviews with a sample of twenty male tobacco users who have been smoking cigarettes on a daily basis for more than two years, I was able to explore the way they perceived pictorial warning messages placed on cigarette packets. Understanding that there is a problem concerning recruiting a sample of smokers in Egypt, especially among youth who usually tend to conceal their smoking habits from their parents and the community, sample recruitment was based on employing the network sampling technique. I started with one respondent, and through his networks of relationships I was introduced to others. The research's aim was explained to the sample and they all agreed to be interviewed.

The sample interviewed ranged between 18 and 24 years old (median age 21.2). Only 10% of the sample finished their university education while the remainder are still in their college education. All of the respondents interviewed were males. Despite the fact that many females also smoke cigarettes, the reason for selecting males is based on the data on adults in the WHO Eastern Mediterranean Region countries which show that there is high prevalence of male smokers compared with females and that smoking by women has typically lagged behind men as a result of social and cultural barriers (WHO, 2008). Sample scanning revealed a number of shared characteristics among the respondents. None of the youth interviewed works and they all still receive their daily allowances from their parents (a very high dependency ratio). Only 10% of the sample indicated that their fathers smoke cigarettes on a daily basis, whereas 20% of them pointed out that their parents know about their smoking habit.

All the interviews were tape-recorded and transcribed fully. An interview guide was developed to cover the various themes related to the topic: basic demographic information, the nature of their smoking habits, reasons for smoking, the way they perceive the effectiveness of smoking signs on cigarette packets, and their ideas of how to make pictorial warning signs more effective to prevent other users or would be users from smoking cigarettes. The main data collection method used was semi-structured in-depth interviews. The interviews took place between January and March in 2013. Each interview lasted between two to four hours. The interviewees were verbally informed at the beginning of the interview about the purpose of the study, were informed that their participation was voluntary, and that they could withdraw at any time. They were also asked if they agreed for the interviews to be tape recorded.

Data analysis was based on coding frequencies of the prevalence of thematic responses across participants. Simple keyword searches or word counts within a data was used to allow a quick comparison of the words used by the respondents within the analysis. So depending on what is being counted, frequencies have been used for thematic analyses (Ryan & Bernard, 2000). Generally, determining frequencies relied on the number of individual participants who mention a particular theme, rather than the total number of times a theme appears in the text. Coding frequencies allowed the use of data in simple frequency tables throughout the research for illustration purposes.

Illustrations of responses in the article, on the other hand, are meant to provide a descriptive evidence of the thematic patterns covered through the interviews, and to represent the general attitudes revealed by the respondents. All illustrations are derived from the in-depth interviews which took place in colloquial Arabic by the interviewer who is fluent in both languages, and then translated to English to suit the nature of readers. Respondents were given fictitious names as an ethical procedure to protect their identities.

WHY DO YOUTH IN EGYPT SMOKE CIGARETTES?

When members of the sample were asked to clarify the reasons for smoking cigarettes, as shown in Table (1), 85% of them referred to their desire to be accepted by their peers and friends who mostly smoke cigarettes on a regular basis. These findings indicate that the impact of peers and normative pressures to smoke among youth, especially during high school and college education, is evident and perhaps a major reason for their smoking habits. This finding corresponds to most of the studies carried out among adolescents and youth on smoking habits (Fathelrahman, et al., 2009; Hammar & Carlson, 2005; Bernheim & Rangel, 2004; Gruber, 2001). Mahmoud, a 21-year-old cigarette smoker explained that by saying:

I was only 14 when I started to smoke cigarettes. My friends encouraged me to try smoking. Although I coughed at the beginning, they taught me how to smoke. All of my friends were cigarette smokers at school.

Omar, a 23-year-old university student also said:

I started to smoke when I was 15. Most girls and boys in my class used to smoke. I felt different and estranged as they used to congregate together during school breaks to smoke. That motivated me to smoke to gain their friendship and acceptance.

Apparently, peer pressure seems to have a direct impact on the initiation of cigarette smoking among adolescents and youth in Egypt. The need to be liked and the pressures imposed by peers to gain their acceptance and friendship usually motivate adolescents and youth to smoke cigarettes. Fifty five percent of the sample, on the other hand, referred to the enhancing effect of nicotine on their concentration and mood-alteration. Ali, a 19-year-old explained that by saying:

I always smoke heavily before exams. Smoking enhances my concentration and gives me the power to stay out late to study. After exams, however, the number of cigarettes I smoke usually drops.

On the other hand, various misconceptions and false beliefs about nicotine are

Table 1. Reasons for smoking cigarettes

Reasons	Total N = 20 (%)
Peer pressure	17 (85%)
To enjoy the experience	11 (55%)
When they face problems	9 (45%)
To feel as grown-ups (sense of manhood)	7 (35%)
Smoking is normalized in their communities	5 (25%)
To imitate their parents	2 (10%)

usually mediated among youth, especially when they congregate for social reasons like parties, when they work, or when they decide to study together for academic exams. Many of the respondents interviewed believe that nicotine is a mood-altering substance that can reduce anxiety and feelings of restlessness. This particular point relates to what 45% of the sample clarified as a reason for their smoking habits. They believed that smoking can reduce tension and anxiety associated with the social or psychological problems they encounter. Mostafa, an 18-year-old respondent, explained that by saying:

> *Whenever someone in my group has a headache, he asks for a cigarette. Many of us do the same thing, assuming that nicotine can change their mood and help them endure headaches.*

A very interesting finding was also expressed by 35% of the sample who admitted that smoking cigarettes correlates with their sense of manhood and masculinity. They believe that when they were in high school, smoking cigarettes helped them feel as grown-ups and that they could imitate those who were older than them. Tamer, a 20-year-old smoker said:

> *When I was in my first year at high school, I found students older than mine smoke cigarettes. That motivated me to do the same thing, which gave me the chance to introduce myself to them and became their friend. When I did that, I felt being older with a high status than my friends.*

Twenty five percent of the sample also noted that it is normal to smoke in the communities where they come from (schools, universities, social gatherings, etc.). This sense of normalization among adolescents and youth seems to positively affect their acceptance of smoking cigarettes as a socially acknowledged form of behavior. The sense of normalization of cigarette smoking, from their perspective, motivates many youngsters to try smoking cigarettes, at least on a habitual basis. Van-Vliet (1990) explains that normalization essentially means the admission by members of a society that smoking has obtained a firm footing in society. He also warns that simultaneously, it proves to be an unrealistic option to eradicate cigarette smoking (Van-Vliet, 1990). Nour, a 19-year-old respondent explained that by saying:

> *Wherever one goes, he/ she will find youth smoking cigarettes. I don't really know how such a problem can be prevented. Youth encourage each other, especially when congregate in large numbers.*

Finally, 10% of the sample seemed to be affected by their parents' smoking habits and believe that their parents may not resist their attempts to smoke. This finding indicates that the reaction of smoking parents to their children's smoking habits may take two forms: either a positive feedback children may receive once their parents know of their smoking habits or to parental indifference to their children's smoking habits since they do the same thing. Sayed, a 21-year-old explains that by saying:

> *I think my father knows that I smoke cigarettes. I do my best to get rid of the smell of tobacco before returning*

home. However, the smell may be stuck to my clothes. I believe that he would do nothing once he knows about my smoking habit. He does that himself.

THE EFFECTIVENESS OF PICTORIAL WARNING SIGNS

When members of the sample were asked to identify 'precisely' at least three of the pictorial warning signs placed on cigarette packages and the significance of each, only two respondents (10% of the sample) were able to identify them (see fig. 1, 2, and 3). They referred to different reasons for not being able to identify all pictures.

One main reason clarified by the entire sample is that they do not normally buy whole packets of cigarettes (20 cigarette per packet) for various reasons (as shown in Table 2), such as the lack of financial resources (90%), fear from parental punishment when parents discover that they smoke cigarettes (65%), consumption of less than a packet per day (55%), and the easy access to borrowing cigarettes from friends rather than buying whole packets (45%). These findings indicate that, out of practicality, the pictorial warning

Table 2. Reasons for not buying whole packets of cigarettes

Reasons	Total N= 20 (%)
Lack of financial resources	18 (90%)
Fear from parental punishment when discovered	13 (65%)
Consumption of a less than 20 cigarettes per day	11 (55%)
Easy access to cigarette borrowing from friends	9 (45%)

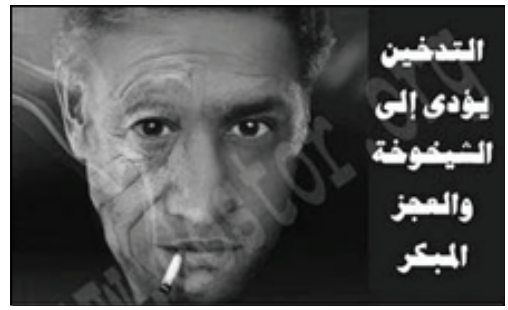

Figure 1. A health warning sign on cigarette packets in Egypt with a note which reads that "Smoking leads to early aging and lack of ability"

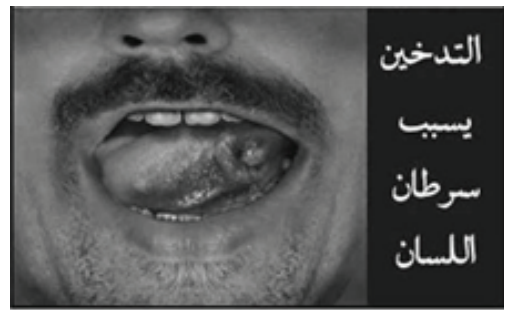

Figure 2. A health warning sign on cigarette packets in Egypt with a note which reads that "smoking causes tongue cancer"

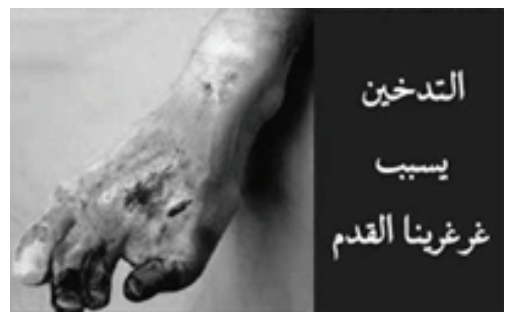

Figure 3. A health warning sign on cigarette packets in Egypt with a note which reads that "smoking leads to feet Gangrene"

messages placed on cigarette packets neither deliberately target nor technically reach adolescents and youth. They mainly target adults who are able to buy whole packets of cigarettes on their own. Tarek, a 20-year-old respondent, elucidates that by saying:

> *I don't buy whole packets of cigarettes. I simply buy the amount of cigarettes I need per day from street kiosks selling cigarettes. They sell cigarettes according to the numbers required by consumers (far'ret).*

Kamal, a 24-year-old respondent stated that:

> *I don't have enough money to buy a whole packet (which may cost up to LE 17). I don't work. My daily allowance from my father is only five pounds per day.*

Wael, a 23-year-old respondent also discussed that by saying:

> *If I buy a whole packet (20 cigarettes) I may not be able to smoke them in one day. When I go home, I should return empty for fear that my parents may recognize that I smoke and be punished. So, it is more practical to either borrow or share cigarettes with other friends.*

As a methodological procedure, then, I showed the sample three pictorial warnings, particularly those currently used in Egypt (Figures 1, 2, and 3), and asked them to express their opinions about them. Although ninety percent of the sample admitted that photos need to be placed on cigarette packets to warn potential users of the health problems associated with 'heavy' or 'long term' smoking, the entire sample criticized the photos on the ground that they only focus on severe health hazards (as shown in Table 3). From their perspective, those photos may be irrelevant to youngsters at their age who would interpret that invariably assuming that they can easily quit, and consequently may not became addicted to tobacco as with the cases of grown-ups who appear on cigarette packages. Adel, a 22-year-old respondent referred to that point by saying:

> *The photos are scary. They show extreme cases of people who have been smoking for years. Those photos need to be replaced. They do not look like real. This is not a good way to target adolescents and youth. They will never be deterred by those photos, assuming that they are still young and in good health. Photos need to be changed.*

On the other hand, as explained earlier, 80% of the sample believes that young smokers may not watch those photos or signs simply because they do not buy whole packets of cigarettes on their own due to the lack of financial resources and to avoid being exposed to parental

Table 3. Adolescents' criticisms of pictorial warning signs

Reasons	Total N= 20 (%)
They only focus on health hazards	20 (100%)
Youngsters do not encounter those signs	16 (80%)
Photos are offensive in displaying severe medical cases	13 (65%)
Long-term exposure to the signs would normalize them	10 (50%)
Photos are not real	6 (30%)

punishment. Sixty five percent of the sample referred to the photos as being 'offensive' (especially the photo of Gagarin cases), which may force smokers to either disdain or avoid watching them. Rizk, a 20-year-old respondent explained that by saying:

> *The photos are scary. Besides, they do not clearly explain the relationship between smoking cigarettes and the health problems that appear in the photos. In most cases, young smokers will overlook them.*

Fifty percent of the sample revealed that long-term exposure of smokers to pictorial warning signs eventually normalizes them among adolescents and youth. They believe that even when deciding to use photos, they have to be changed every year or so, otherwise they would lose their effectiveness. On the other hand, 30% questioned the pictures themselves by explaining that they represent "photoshop" (fake or fabricated photos) rather than actual cases of medical complications heavy smokers suffer from.

When members of the sample were asked to clarify how to make the photos more effective, since most of them agrees that photos can help prevent the spread of smoking among adolescents and youth, they all referred to the idea that photos have to target the actual reasons for smoking cigarettes, such as how to deal with peer pressure, the misconceptions associated with using nicotine, or simply to inform young smokers that they should not incorporate others in their smoking habit. They also explained that photos and their accompanying written signs should clarify to both users and would-be users that there is no direct link between smoking and concentration or finding solutions to the problems they face, and that smoking cigarettes would not make them grown-ups. In other words, the messages and their pictorial warning signs should attempt to target the actual reasons they suffer from or those that made them smoke in the first place rather than creating an image of potential long-term health threats they may encounter with long-term or sustained smoking of cigarettes.

CONCLUSION

One of the main challenges confronting specialists in tobacco control in Egypt is the selection of pictorial warning messages to be placed on cigarette packages. Unlike what Hammond, et al. (2012) advocates that "there is a need for research to examine the most effective types of message content for pictorial warnings, including the use of fear-arousing graphic depictions of disease, images that highlight human suffering, symbolic imagery, and the use of personal testimonials" (Hammond et al., 2012: 4), there is a need to highlight pictorial messages that target the social and cultural etiological-bases behind cigarette smoking in Egypt.

Findings of the present research revealed that various reasons usually motivated adolescents and youth to smoke cigarettes. Their smoking habits are usually affected by peer pressure and the tendency to be accepted in adolescent and youth communities; the false beliefs and misconceptions mediated among adolescents and youth of the positive effects of smoking cigarettes on concentration and mood-alteration; the misconception that smoking nicotine can help release tension

and enhances the ability to solve problems; youngsters attitude to be treated as grown-ups, especially among males which associate smoking cigarettes with the development of their sense of manhood and independence; the mediated sense of normalization among adolescents and youth of the prevalence of smoking; and the desire to imitate parents who smoke.

Findings also elucidated that various reasons limit the effectives of pictorial warnings placed on cigarette packages in Egypt. The idea that photos only reveal the negative health consequences associated with long-term tobacco use among adults; the fact that youngsters do not directly get exposed to the photos placed on cigarette packages due to the lack of financial resources, fear from parental punishment when parents discover that they buy cigarettes, using less than 20 cigarettes per day and depending on borrowing cigarettes from friends, which bounds their direct confrontation with photos; photos are considered as being offensive and scary from their perspective; the normalization of photos which technically become 'worn-out' after long-term usage; and their suspicion of the photos themselves, which from their perspective, are not real photos of actual cases of diseases adults suffer from due to long-term use of cigarettes.

There is no doubt that warnings with pictures are more effective than text-only warnings, especially in countries like Egypt with a very high illiteracy rate.[3] They may increase the message's accessibility by people with low levels of literacy and can help smokers visualize tobacco-caused diseases. However, they need to be rotated regularly to avoid overexposure. Smoking prevention programs aimed at Egyptian adolescents should be accompanied by smoking cessation programs for the family and adult community members.

Two main research limitations are noted in the present research. First, the entire sample selected was composed of male cigarette users. Further studies are required to emphasize male-female differences and gender variability with regard to smoking behavior. Second, the sample selected was composed of young males in their late adolescence. Despite the fact that cigarette warning signs are also viewed by adults, the present research addresses the problem among a certain age group of users. There is still a need to investigate the way adults perceive warning pictorial signs.

END-NOTES

1. Almost 19.4% (9.7 million) of adults in Egypt currently smoke tobacco; 37.7% men and 0.5% women. Ninety-five per cent (95%) of current smokers in Egypt are daily smokers. Among daily cigarette smokers, men smoked on average 19.4 cigarettes per day (Center for Disease Control and Prevention – CDCP, 2009).
2. Although there is no official age for smoking in Egypt, selling cigarettes to minors (children below 18 years old) is not allowed.
3. The term 'collective societies' usually refers to "Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after him- or herself and his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onward are integrated into strong, cohesive in-groups, which throughout

people's lifetime continue to protect them in exchange for unquestioning loyalty. Source: Geert Hofstede, Gert Jan Hofstede, and Michael Minkov, *Cultures and Organizations: Software of the Mind*, 2010, p. 90.

4. According to CAPMAS, illiteracy rates among youth aged 15 to 24 was only 8.5% whereas people aged 60 or more had a 62.3% illiteracy rate. Available at: http://www.egyptindependent.com/news/capmas-more-16-million-illiterate-people-egypt-2012.

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