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Cultural capital and self-determined behaviour: conceptual and empirical evidence of smoking cessation in Egypt

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Cultural Capital and Self-determined Behaviour: Conceptual and Empirical Evidence of Smoking Cessation in Egypt

Abstract

Purpose

Despite the prevalence of tobacco use, Egypt lacked smoking cessation treatments to combat the nation's rising smoking population and studies on smoking cessation were limited in the majority of low- and middle-income countries. There is an urgent need to study the enablers of smoking cessation.

Design/Methodology/Approach

This study adopted a quantitative research approach to test the conceptual framework. Data were collected using two sampling methods: a random sample in the first phase followed by a snowball strategy. A total of 569 ex-smokers who had successfully stopped smoking completed self-administered questionnaires. Structural equation modelling was adopted for the data analysis.

Findings

The findings of this study indicate that the accumulation of Cultural Capital could serve as an independent cause for successful smoking cessation behaviour in Egypt.

Originality

To the author's knowledge, this is the first study to expand Self-determination Theory and combine Cultural Capital to understand successful smoking cessation behaviour. While most studies focused on current smokers and intentions to quit, this study assessed exsmokers who had successfully ceased smoking. It confirmed Cultural Capital alone could contribute to behavioural and sustained behavioural change.

Policy Implications

Egypt should invest in cultural activities and educational establishments which not only help its smoking population acquire new skills but also contribute to successful and sustained smoking cessation.

Keywords

Social Marketing, Self-determination Theory, Cultural Capital, Smoking Cessation, Sustained Behavioural Change, Autonomous Motivation.

1.0 Introduction

The implementation of tobacco control policies has contributed to significant progress in smoking cessation behaviours in developing countries (Feliu *et al.*, 2020). The tobacco industry has refocused its efforts on countries with lax enforcement of tobacco policies (Banks *et al.*, 2017; Maziak *et al.*, 2013). Consequently, the use of tobacco products has increased significantly in underdeveloped regions (Giovino *et al.*, 2012; Pampel, 2006; Safiri *et al.*, 2021). However, research is scarce on smoking cessation in low and middle-income countries (Akanbi *et al.*, 2019), and effective smoking cessation programs are unavailable in those neglected areas (Maziak *et al.*, 2004; Owotomo, 2016). Egypt has the highest smoking rate among Arab countries (Abo Elkheir and Sobh, 2016) and lacked smoking cessation treatments (Abdelazim *et al.*, 2018; Bader *et al.*, 2018).

Most of the smoking-related research in Egypt examined the impact of tobacco consumption and taxation (A. Mostafa *et al.*, 2023) or measured the effect of warning labels on motivation to quit (Farran *et al.*, 2021; A. Mostafa *et al.*, 2018; A. Mostafa *et al.*, 2021). Smoking cessation research mostly focused on developed countries, with few comparable studies in low and middle-income countries (Martins *et al.*, 2021), such as Egypt (Fouda *et al.*, 2018). Most published studies focused on smoking cessation intention rather than actual cessation as an end-point behaviour, (Khattab *et al.*, 2016; ElShahawi *et al.*, 2022; Ba-Break *et al.*, 2021). Limited research has tried to explain smokers' attitudes towards cessation (Frere *et al.*, 2024; Shahat *et al.*, 2000) and quitting patterns (Anwar and Senosy, 2020; El-Wahab, 2020). Previous cessation studies primarily focused on current Egyptian smokers, but not smokers who have successfully quit.

To fill this knowledge gap, this study investigated smoking cessation in Egypt using a theory adaptation approach because it provides a structured framework for analysing behaviours (Rundle-Thiele et al., 2019) and aids health promotion research and intervention planning (Cheung et al., 2020). This study seeks to broaden the theoretical foundations of social marketing (Farrukh et al., 2021) since theory in social marketing remains underused (Willmott and Rundle-Thiele, 2022). Additionally, to identify nontherapeutic smoking cessation determinants among Egyptians because it is considered the most cost-effective approach to smoking cessation (Abd El-Wahab, 2021). Motivation has been identified as a critical enabler of smoking cessation (Buczkowski et al., 2014; Pieiro et al., 2016; Abd ElWahab, 2021), however, it has been ambiguous about what motivation means to smokers versus researchers (Smith et al., 2015). Earlier discussions of motivation concentrated on practical consequences or broad overviews without delving deeply into the theory (Kusurkar et al., 2011). A knowledge gap remains about the understanding of different motivational types, and what they actually mean for smokers. The Selfdetermination Theory (SDT) is introduced to guide this study, as it emphasises on quality of motivation rather than quantity (Sansone and Tang, 2021; Niven and Markland, 2016). SDT was highlighted by several systematic review papers (Sheeran et al., 2020; Gillison et al., 2019; Ntoumanis et al., 2020), for its potential to explain behaviour change and maintain changed behaviours (Tessier *et al.*, 2018; Ryan *et al.*, 2008; Escriva-Boulley *et al.*, 2018; Ryan *et al.*, 2008), which is a distinctive advantage of the theory compared to others (Kwasnicka *et al.*, 2016). It is envisaged that SDT will aid this study's investigation into how ex-smokers successfully quit and maintained their smoking cessation behaviour.

The premise of SDT is based on three fundamental needs (e.g., autonomy, competence, and relatedness), and when those needs are met, humans form internal reasons to perform specific behaviours, these internal reasons are classified as 'autonomous motivation', (Zeigler-Hill and Shackelford, 2020). When those needs are not met, humans develop controlled reasons such as guilt, shame, and obligations to perform certain behaviours, these controlled reasons are specified as 'controlled motivation', (Olafsen *et al.*, 2021). Some researchers have questioned the validity of this fundamental proposition and empirical evidence suggested that the three SDT needs are universal regardless of cultural differences (Damianus and Theogenia, 2017), which makes this theory susceptible to criticism. In addition, according to Cheung *et al.* (2020), SDT lacked empirical testing in terms of motivational factors within the process of behavioural change. To address these concerns, this study merged SDT with another theoretical framework - Culture Capital (CC) to test their effects on behavioural and sustained behavioural change.

It is suggested that when cultural capital intervenes, sustainable behaviours can be practised and preserved until they become norms and cultures, making behavioural change long-term rather than temporary (Raissa *et al*, 2021). Therefore, this study utilised CC in attempt to understand smoking cessation behaviour because theoretically, CC has proved to be an important lens independently (Mackenbach, 2012). Past studies revealed that it acted as an enabler for adults in Saudi Arabia to attempt tobacco cessation (Monshi *et al.*, 2023). CC has the potential to reduce smoking and alcohol consumption (Wang et al., 2021), and modify health attitudes (Ohashi *et al.*, 2017; Khawaja and Mowafi, 2006). As suggested by Zhang *et al.* (2021), more theory modification or theoretical integration was needed to better understand behavioural change. Therefore, this study's objectives are:

- 1, to test the impact of cultural capital accumulation on different motivational forms of self-determined behaviour amongst ex-smokers in Egypt.
- 2, to examine the effects of cultural capital accumulation and self-determined behaviour on smoking cessation behaviour in Egypt.

2.0 Theoretical Overview

2.1 Self-determination Theory

The general claim of the Self-determination Theory is around the influence of three fundamental needs, namely autonomy, relatedness, and competence, on individuals' wellbeing and healthy lifestyles (Milyavskaya and Koestner, 2011; Rijavec *et al.*, 2011;

Ryan and Deci, 2000). Frustration or dissatisfaction with any of those needs cause disruptions to psychological growth, internalization, and wellbeing (Van den Broeck *et al.*, 2016). The term 'autonomy' refers to the desire to be self-determining and capable of acting according to one's core beliefs and values (Martela and Riekki, 2018). The need for 'relatedness' entails the requirement for humans to feel connected to and be accepted by those in their network (Ryan and Deci, 2017). Finally, believing in one's own ability and capabilities satisfies the need for 'competence' (Legault, 2017).

Scholars used empirical evidence to confirm that these three fundamental needs are considered universal (Cunningham et al., 2021; Deci and Ryan, 2008; Milyavskaya et al., 2009; Ohajunwa and Mji, 2018; Vansteenkiste et al., 2020). However, some researchers have questioned SDT's universality by suggesting that this theory neglected a person's unique cultural idiosyncrasies (Ginevra et al., 2013; Chao and Tseng, 2002; Kaplan and Madjar, 2017), particularly those of autonomy and relatedness in Western and Eastern society (Tang et al., 2021). This critique focuses on the level of autonomy that differs in various cultures (Wannheden et al., 2021), for example, individuals from Eastern collectivistic cultures are less respectful of individual liberty than those from Western individualistic cultures (Jang et al., 2009). Gonzalez-Cutre et al. (2016) and Fernandez Espnola et al. (2020) suggested additional needs beyond those mentioned in the original SDT theory. However, Baxter and Pelletier (2019) raised the question of how many needs should be included and whether they are culturally appropriate (Vansteenkiste et al., 2020). Egypt is recognised as a collectivist culture (Elsaid and Elsaid, 2012), taking into account of above critique, using SDT alone might not be sufficient to comprehend the complex behaviour of smoking cessation, and bringing in another theoretical perspective is needed to produce a better understanding.

2.2 Bourdieu's Cultural Capital

Bourdieu (1986) proposed three types of capital, namely social, economic, and cultural capital. While this study cannot assert that one capital is more significant than the other, it is claimed that the better established a group's Cultural Capital (CC) is, the greater their opportunity to develop all their capitals in accordance (Raissa *et al.*, 2021). According to Bourdieu (1977), CC has three types: embodied, objectified, and institutionalised. The embodied type is defined as "long-lasting dispositions of the mind and body" (Bourdieu, 1986, p. 47) and thus it is believed that it takes time to attain this state, but can be transmitted from parent to child (Claussen and Osborne, 2012). Also, the embodied type has the strongest influence to affect human behaviour and choices (Hampton-Garland and Pamela, 2015). The objectified capital refers to cultural objects that can be transmitted between individuals and could include books, musical instruments and paintings (Bourdieu, 1986). Finally, institutionalised cultural capital refers to a person's 'cultural competence', or otherwise those items that add credence to a person's opinions or actions.

Institutionalised methods of demonstrating such capital are typically academic credentials and qualifications (Bourdieu, 1986).

2.3 Self-determination Theory and Cultural Capital

CC is a nonmaterial resource that accumulates over time as a result of education and lifelong socialisation, (Pinxten and Lievens, 2014). It included the specific kinds of knowledge and skills that people developd because of their training in the cultural disciplines. This capital requires interaction with others and lifelong learning through discussions, socialisation, competencies, and credentials (Hashemi *et al.*, 2018). Although SDT may be social in nature (Martela *et al.*, 2021; Deci and Ryan, 2012), individuals won't directly satisfy their basic needs unless they participate in activities that foster connection and confidence (Ryan, Soenens, and Vansteenkiste, 2019). Bourdieu (1986) stated that cultural events and attendance are social and that cultural experiences are often gained through social contact (Lee, Chung, and Park, 2016). Social capital requires interaction with others and lifelong learning through discussions, socialisation, competencies, and credentials (Hashemi *et al.*, 2018).

Additionally, studies in CC argued that the skills, credentials, and values acquired throughout a lifetime are not inheritable and cannot be conveyed by individual mechanisms (Emirbayer and Williams, 2005), indicating that each individual is accountable for developing his or her own cultural capital using an acquisition process. Also, individuals with significant cultural capital can shape their surroundings and define circumstances (Vassenden and Jonvik, 2018), implying that the process of acquisition and accumulation of cultural capital itself was based on self-selection and freedom of choice (Kim et al., 2020). If individuals are not satisfied with their basic needs, they cannot accumulate cultural capital. Thus, this study proposes that the different forms of CC could substitute SDT's three basic needs to develop motivations that result in behavioural change. The argument that cultural capital is universal or global is predicated on the premise that cultural capital serves as an indicator of one's global culture, (Lamont and Lareau, 1988; Prieur and Savage 2011). Hence, this study suggests CC could be effectively utilized to assess the development of motivations that affect behavioural change while addressing SDT's criticism of not being able to consider cultural differences. This study's main theory assumption and argument is illustrated below in Figure 1:

[Insert Figure 1 here]

This study proposes that three basic needs identified in the SDT can be embedded in the embodied and institutionalized indicators of CC. Autonomy (SDT need) implies that people choose their behaviours independently and sense ownership over them, (Laporte *et al.*, 2021). Bourdieu discussed freedom of choice through education (Lamont and Lareau,

1988) and the process of self-selection was essential for the accumulation of cultural capital (Kim, *et al.*, 2020). As a result, the study proposes that the need for autonomy is embedded in the institutionalized dimension of CC via actions in credentials earned. For the competency (SDT need), it symbolizes the need to feel competent and efficacious in one's skills and abilities (Wang *et al.*, 2019). This is also embodied in the CC in which Bourdieu defined cultural capital owners as having achieved competence through the acquisition of cultural forms (Mahar *et al.*, 1990). Finally, the third need in the SDT is relatedness, which is the need for connection and relationships (Miller and Gramzow, 2016), this is also incorporated in the accumulation of CC through social interactions and relationships, where greater cultural capital implies more social capital (Novisky, 2018). As recommended by Richards and Johnson (2014), exchanging CC indicators and SDT needs could maintain theoretical coherence and reduce redundancy.

3.0 Conceptual Framework

CC obtained by freedom satisfies self-determination needs (Kim *et al.*, 2020), and CC cannot be forced or controlled. This suggests that the psychological needs associated with each behaviour probably impact motivation (Ahmadi *et al.*, 2023). Hence, this study proposes the following two hypotheses:

- H1: There is a positive relationship between the level of cultural capital and autonomous motivation.
- H2: There is a negative relationship between the level of cultural capital and controlled motivation.

Both autonomous and controlled motivation exist in a mediating form; however, this is no empirical evidence of this mediating role (Duda *et al.*, 2014; Teixeira *et al.*, 2020). Studies of controlled motivation revealed a negative correlation with positive behaviour modification, (Ryan *et al.*, 2008; Williams *et al.*, 2002; Orsini *et al.*, 2016). Consequently, this study proposes the following two hypotheses:

- H3: There is a positive relationship between autonomous motivation and smoking cessation.
- H4: There is a negative relationship between controlled motivation and smoking cessation.

Finally, individuals who possessed a higher degree of cultural capital were more likely to engage in health-related behaviours (Doblyt, 2019) and the accumulation of such capital

led to improved health outcomes (Khawaja and Mowafi 2006). Based on this, this study proposes the following:

• H5: There is a positive relationship between the level of cultural capital and smoking cessation.

The conceptual framework of this study is illustrated below in Figure 2:

[Insert Figure 2 here]

4.0 Research Methods

Quantitative approaches can make strong claims about the reliability, usefulness, and objectivity of knowledge (Benton and Craib, 2001). The quantitative analysis could also assess the predictive capacity of the chosen variables (Ivankova *et al.*, 2006). Since this study aims to test the relationships between constructs (e.g., how much of the cultural capital influences different motivational forms), it is appropriate to adopt the quantitative method. Another rationale for using the quantitative research is that the social marketing studies dominantly used the qualitative method (Bhat, Darzi and Hakim, 2019; French and Gordon, 2020). Sieben and Lechner (2019) suggested that using quantitative methodologies could contribute to the field of social marketing. Additionally, the lack of empirical evidence for Cultural Capital (Sieben and Lechner, 2019) provides an opportunity for the discipline to benefit from more empirically based quantitative approaches.

The primary objective of this paper is to study the cessation process of ex-smokers who have successfully ceased smoking. Based on the suggestion of Hair *et al.* (2011), this study collected 569 valid online questionnaires. Online survey is considered faster and more accurate than paper and pencil surveys, (Gravlee, 2002). A random sampling approach was first employed to enhance sample diversity (Kirchherr and Charles, 2018) and afterwards a snowball sampling approach was used based on the contacts from the identified random sample. Although Egypt has high rates of underage smoking, surveying respondents who are younger than 18 is problematic, thus this study only approached adults.

4.1 Data collection tool development

The study incorporates established measures with a minimum Cronbach alpha of 0.7 from the existing literature to reduce method bias (Podsakoff *et al.*, 2003). Table 1 shows the

details of the scale used in this study. Cultural capital, autonomous motivation and controlled motivation were measured based on the 7-point Likert scale. Smoking cessation was assessed by the cessation period of continuous abstinence. The scales were translated into Arabic using two rounds of backward translation in collaboration with a governmental translation institute. Academic experts checked the survey questions before a pilot phase (N=53) using the snowball sampling method. Cronbach's alpha of the gathered data was 0.862, which is higher than 0.70, indicating data are credible and consistent.

[Insert Table 1 here]

4.2 Data Analysis

The study used AMOS software to analyse the data, following a two-stage process suggested by Anderson and Gerbing (1988). The measurement model, or a confirmatory factor analysis (CFA), was first conducted to test the reliability and validity of the measurement model, and then Structural Equation Modelling (SEM) was implemented.

5.0 Results

Table 2 demonstrates the demographic background of the respondents, 72.2% of them are men; 25.8% of them fall in the age group of 23 and 28. The respondents are mainly from Cairo, the capital city of Egypt. Most of them have graduate degrees, and half of them are professionals. The entire sample consists of ex-smokers who have successfully stopped smoking. The sample characteristics are illustrated below in Table 2:

[Insert Table 2 here]

5.1 Measurement Model

The results of the measurement model (N = 569) show a good model fit (goodness-of-fit index: $\chi^2 = 35.78$, df = 12, $\chi^2/df = 2.98$, CFI = 0.927, TLI = 0.987, IFI = 0.931, RMSEA = 0.032). Table 3 presents the reliability and validity of the constructs. In this study, Cronbach's alpha reflects the good reliability of the constructs as they ranged from 0.719 to 0.927. Furthermore, the composite reliability checks the internal consistency of measurement scales. All composite reliability of constructs was greater than 0.7, which is above the acceptable level as indicated in the literature (Hair et al., 1995; Devellis, 2003).

This study also checked the average variance extracted (AVE), which is a measurement of the amount of variation recorded by a construct in relation to the amount of variance related to measurement error (dos Santos and Cirillo, 2021). According to Hair *et al.* (2022), an

AVE of 0.50 is the minimal acceptable threshold, which could demonstrate the consistency of the data. The results of reliability and validity tests are illustrated below in Table 3:

[Insert Table 3 here]

5.2 SEM and Hypothesis Testing

The model fit for SEM is satisfactory (goodness-of-fit index: $\chi^2 = 28.56$, df = 6, $\chi^2/df = 4.76$, CFI = 0.915, TLI = 0.991, IFI = 0.947, RMSEA = 0.022). As shown in Table 4, the results of H2 and H4 demonstrate positive relationships; however, the original H2 and H4 had negative effects. Therefore, both H2 and H4 were rejected. The remaining hypotheses of H1, H3, and H5 were supported. Figure 2 also demonstrates the effect sizes of all paths in this paper. Cohen (1988) considered 0.10 a small effect size, 0.30 a medium effect size, and 0.50 a large effect size. Accordingly, the effect size of H1 and H3 in this paper is small, and the effect size of H5 is large.

[Insert Table 4 here]

[Insert Figure 3 here]

6.0 Conclusions and Discussions

The results show that CC only influenced autonomous motivation, not controlled motivation. More specifically, it increased autonomous motivation by a small effect size of 0.15. This finding illustrated that the acquisition of CC through social interactions and the development of cultural skills in an individual's life are more likely to enhance a smoker's autonomous motivation.

CC positively correlated with smoking cessation, with an effect size of 0.47. This shows a positive correlation between reading proficiency, literature appreciation, instrumental object ownership, musical activity participation, fluency in a foreign language and successful smoking cessation. This finding is consistent with previous studies on health-related behaviours such as perceived health in Lebanon (Khawaja and Mowafi, 2006, 2007), mental health in England (Billings and Young, 2021), reduction of smoking in China (Xu & Jiang, 2020), and eating, smoking, and drinking patterns in Italy (Oncini and Guetto, 2017).

Autonomous motivation impacts smoking cessation with an effect size of 0.16, but not controlled motivation. This result supports previous studies in which controlled motivation did not affect smoking cessation (Deci and Ryan, 2000; Hagger and Hamilton, 2020; Brunet *et al.*, 2015; Fernández Espnola *et al.*, 2020). This conclusion can be considered rational given the context of operating inside a collectivist culture. Additionally, there

might be a positive indirect effect of cultural capital on cessation via autonomous motivation (0.024). The results also showed that controlled motivation is unlikely to be a mediator as H2 and H4 were rejected. The results of this study support Duncan *et al.* (2015) that there is a mediation effect between autonomous motivation and physical activity but no mediation between controlled motivation and physical activity. Two possible explanations link between CC and smoking cessation in Egypt. First, the socialisation process of accumulating cultural capital, during which people gain values, skills, and new ideas regarding smoking's health dangers, may help them stop (Gagné *et al.*, 2015). The alternative explanation is that reading and visiting museums help former smokers through their depressive periods, which are usually connected with quitting smoking (Clancy *et al.*, 2013). This study found that CC affected smoking cessation behaviour mainly for autonomous motivation, which is related to internal motivation, making it an overlooked health indicator in Egypt.

7.0 Original Contributions, Limitations and Policy Implications

This paper adds empirical support for SDT in smoking cessation areas, where a void exists (Sheeran *et al.*, 2020; Ntoumanis *et al.*, 2020). To the authors' knowledge, this is the first study to theoretically and empirically evaluate cultural capital accumulation on self-determined motivating forms in the context of smoking cessation behaviour. This permits SDT to be used in instances where it failed due to criticism of three basic needs could be insufficient in terms of considering cultural differences (Duda *et al.*, 2014; Knox *et al.*, 2021; Gillison *et al.*, 2013). There have been limited attempts to explore CC in relation to social marketing. For example, Spotswood and Tapp (2013) qualitatively examined the notion, however they only included the embodied dimension in physical activity. Unlike the present study, which provided empirical evidence, Kamin and Anker (2014) only theoretically examined how CC may be introduced by utilising the three aspects of capital.

According to Truong (2016), it is imperative to incorporate a social and cultural framework when addressing behavioural change in social marketing. The findings support the claim that social marketing strategies must deviate from 'individualistic epidemiology'; instead, prioritise the allocation of resources for external factors that contribute to an individual's development, such as acquiring and enhancing cultural capital. Therefore, the study adds evidence to support advocacy for policy measures that increase and encourage individuals to accumulate cultural capital. In designing social marketing interventions, they must consider variations in cultural capital distribution and accumulation. Social marketing professionals must have a full understanding of the value of cultural capital accumulation and how individuals use it to influence their behaviours. Our study provided direct empirical evidence to support that cultural capital could independently affect not only behavioural change but sustained behavioural change. In our study's context, cultural capital accumulation has contributed to the successful smoking cessation of Egyptian ex-

smokers. This significant finding has important policy implications. Egypt should invest more in cultural activities, such as music, art, literature and languages. This investment could benefit both parties because cultural capital owners are successful at promoting tourist services (Quaglione *et al.*, 2020), one of the world's most important industries (Baalbaki and Zizka, 2023). Institutionalized cultural capital also played an important role, investing in educational establishments such as universities and colleges could upskill the Egyptian smoking population and contribute to societal wellbeing that could help them successfully quit smoking.

Although the context of this study is only focused on Egypt, it could shed light on successful smoking cessation which is a global challenge. Governments around the world could draw inspiration from this, alongside other public policy interventions such as smoking ban in public venues and packaging warning labels, investing in culture and education is worthwhile perhaps even in the most challenging economic realities. Cultural activities and educational establishments not only are sources of income, and providers of employment but also crucial enablers of better and healthier societal wellbeing. They could help individuals acquire new skills but also contribute to healthy lifestyle choices, such as successful and sustained smoking cessation.

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