The transtheoretical model use for smoking cessation

Ayşe Koyun a *, Kafiye Eroğlu b

aAfyon Kocatepe University, Afyon School of Health, Afyonkarahisar, 03200, Turkey
bKoc University, School of Nursing, Istanbul, 34365, Turkey

Abstract

Smoking addiction is considered a disease according to the International Classification of Diseases. There is a need for regular treatment due to relapse occurrence. For this reason, the psychosocial dimension of the disease should be treated. Healthcare professionals are required to find the most convenient approach to provide healthy behaviours for individuals. In this review, the Transtheoretical Model use for smoking cessation is discussed. The Transtheoretical Model (TTM) has been presented as an integrative and comprehensive model of behaviour change. The TTM has concentrated on five stages of change (precontemplation, contemplation, preparation, action; and maintenance), 10 processes of change (focuses on activities and events that create successful modification of smoking), decisional balance (the pros and cons of changing), and self-efficacy (the self-confidence of individual regarding smoking cessation). Stages of change lie at the heart of the TTM. Processes of change, decisional balance and self-efficacy work best at each stage to reduce resistance, facilitate progress, and prevent relapse. The TTM enables the use of convenient interventions for the stage of change where individual is included and increases the success. The TTM based smoking cessation studies reported success rates from 4.5% to 39.5%. Behavioural methods are more secure than other approaches in smoking cessation studies. The TTM contains powerful measurement vehicles, which reveal thoughts of individuals regarding when, why and how to change their behaviour to quit smoking, as well as their confidence on this issue. It is possible to have success in the behavioural change by using these measurement vehicles with interventions that are peculiar to the individual. For this reason, the model is recommended to use smoking cessation studies.

Keywords: Smoking, smoking cessation, transtheoretical model

1. Introduction

This papers aims to discuss the Transtheoretical Model (TTM) use for smoking cessation. Smoking is annually causes the death of approximately five million people in the World (Mathers & Loncar, 2006). Global Adult Tobacco Survey, which was conducted in 16 countries including Turkey in 2008-2010, determined that 48.6% of men and 11.3% of women were tobacco users (Giovino et al., 2012). In addition to this, it is indicated that behavior of smoking that is perceived as a man’s behavior from past to present is gradually becoming widespread among young girls and women especially in developing countries. Smoking not only affects the health of both genders in several dimensions, but also influences reproduction functions of women more negatively (Shafey et al, 2003; Lindbohm et al, 2002). Smoking cessation studies should be supported to prevent problems concerning the reproduction health in women. Behavioral methods are considered more reliable than other approaches in smoking cessation (Manfredi et al., 1999).

* E-mail address: ayse.koyun@hotmail.com
2. The transtheoretical model

The TTM that was developed by Prochaska and DiClemente (1982). They emphasize that the behavioral change consists of five stages (precompletion, completion, preparation, action, maintenance) and individuals need special applications of these stages to be successful (Prochaska & DiClemente, 1982; West, 2005). In literature, it is indicated that approaches, which do not consider the stage of change where individual is included, develop a resistance against the behavioral change (Cingözbay et al., 2011). On the other hand, the TTM enables the use of convenient interventions for the stage of change where individual is included and increases the success. The model was indicated to be effective upon the studies of smoking cessation (Erol & Erdogan, 2008; Evers et al., 2012; Pantaewan et al., 2012).

The model has been presented as an integrative and comprehensive model. The TTM uses interventions that are appropriate for the change phase of the individual (Prochaska & Velicer, 1997). These phases provide the opportunity of making the decision of an appropriate treatment plan for the individual (Koyun & Eroğlu, 2013). When all individuals are given the same information, this causes waste of time and development of resistance against change (Velicer et al., 1998). In studies based on the TTM, the rate of smoking cessation was obtained at 4.5-39.5% (Koyun, 2013; Erol & Erdogan, 2008; Ergul & Temel, 2009; Karatay et al, 2010). Mallin (2002) said that only 7.9 percent of smokers are able to quit without help. The combined use of nicotine replacement, social or behavioral support, and medication can increase the quit rate to 35 percent.

The TTM consists of four constructs. Stage of Change (SOC) explains individual’s thoughts and behaviors regarding changing behaviors, Processes of Change (POC) explains what methods are used by the individual while changing behaviors, Self-Efficacy (SE) explains the self-confidence of the individual regarding how long she/he will bear against the desire of smoking, and Decisional Balance (DB) explains pros and cons of changing to the target behavior (Redding et al., 2000; Velicer et al., 1990). Table 1 describes all the constructs that collectively comprise the TTM.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stages of change</td>
<td></td>
</tr>
<tr>
<td>Precontemplation</td>
<td>No intention to take action within the next 6 months</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Intends to take action within the next 6 months</td>
</tr>
<tr>
<td>Preparation</td>
<td>Intends to take action within the next 30 days</td>
</tr>
<tr>
<td>Action</td>
<td>Has changed overt behavior for less than 6 months</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Has changed overt behavior for more than 6 months</td>
</tr>
<tr>
<td>Decisional balance</td>
<td></td>
</tr>
<tr>
<td>Pros</td>
<td>The benefits of changing</td>
</tr>
<tr>
<td>Cons</td>
<td>The costs of changing</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>Confidence that one can engage in smoking cessation across different challenging situations</td>
</tr>
<tr>
<td>Processes of change</td>
<td></td>
</tr>
<tr>
<td>Consciousness Raising</td>
<td>Finding and learning new facts, ideas, and tips that support smoking cessation</td>
</tr>
<tr>
<td>Dramatic Relief</td>
<td>Experiencing the negative emotions (fear, anxiety, worry) that go along with smoking risks</td>
</tr>
<tr>
<td>Self-reevaluation</td>
<td>Realizing that smoking cessation is an important part of one’s identity as a person</td>
</tr>
<tr>
<td>Environmental</td>
<td>Realizing the negative impact of smoking, or the positive impact of smoking cessation, on one’s proximal social and/or physical environment</td>
</tr>
<tr>
<td>Reevaluation</td>
<td></td>
</tr>
<tr>
<td>Self-liberation</td>
<td>Making a firm commitment to change</td>
</tr>
<tr>
<td>Helping Relationships</td>
<td>Seeking and using social support for smoking cessation</td>
</tr>
<tr>
<td>Counter Conditioning</td>
<td>Substitution of the healthier alternative behaviors and/or cognitions for smoking</td>
</tr>
<tr>
<td>Reinforcement Management</td>
<td>Increasing the rewards for smoking cessation and/or decreasing the rewards of smoking</td>
</tr>
<tr>
<td>Stimulus Control</td>
<td>Removing reminders to engage in smoking</td>
</tr>
<tr>
<td>Social Liberation</td>
<td>Realizing that social norms are changing in the direction of supporting smoking cessation</td>
</tr>
</tbody>
</table>
3. Transtheoretical model interventions

The existence of individuals, who do not consider changing their behaviors, fail after a number of trials or get stuck in the stage of precontemplation for years, is an indicator of the need for using different strategies for a successful behavioral change. The literature not only emphasizes the fact that individuals are in different stages of change for behavioral change, but also states that when all individuals are given the same information, this usually results in the waste of time and development of resistance against change (Cingöz et al., 2011). Considering these information, it is seen that not every individual has the same level of readiness for behavioral change. In that case, interventions should be personal for behavioral change. These interviews not only enabled the case to make a decision about the positive health behavior, but also increased self-sufficiency and enabled to quit smoking.

In the precontemplation stage, a patient does not believe that smoking is a problem or refuses to consider smoking cessation. In the contemplation stage, the patient recognizes that smoking is a problem and wants to stop. During the preparation stage, the patient makes specific plans to stop smoking, such as setting a quit date and determining how smoking cessation will be accomplished. In the action stage, the patient stops smoking. Finally, the maintenance stage is marked by the patient’s continued abstinence from smoking (Prochaska et al., 1992). Smoking cessation interventions implemented using the stages shown in Table 2.

The precontemplation and contemplation stages of change are filled with ambivalence (Prochaska et al, 2010). It is indicated that having ambivalent feelings is a common condition in dependence behaviors. Majority of individuals who smoke even though both want and do not want to change, they are generally aware of the cost and harm of the behavior (Miller & Rollnick, 2002). Janis and Mann (1997) visualized the ambivalence as a teeter-totter. The individual tries both of the motivations since the teeter-totter has pros and cons on both sides. Ambivalence could be experienced no matter which choice is preferred. Individuals in this stage are either unaware of the problematical behavior or reluctant about the behavioral change. They have a low self-reliance to change the behavior (Hollis et al., 2005). An action plan should be prepared in the preparation stage such as determine a date for smoking cessation within the next one month (Prochaska & Velicer, 1997). Stage of action is the stage where individuals frequently return to their old behavior. It is stated that interventions aimed at preventing the return to the behavior and approaches aimed at rewarding the positive behavior are very effective in this stage (Cancer Prevention Research Center, 2012). The maintenance stage continues for a lifetime. It should be remembered that individual tries to sustain the new healthy behavior and prevent the relapse (Prochaska & Velicer, 1997). Even though the risk of relapse is still low, the precautions should be careful (Erol & Erdogan, 2008).

4. Conclusion

This study aims to discuss the Transtheoretical Model use according to the stages of change in smoking cessation. Healthcare professionals are required to find the most convenient approach to provide healthy behaviors for individuals. TTM contains measurement vehicles, which reveal thoughts of individuals regarding when, why and how to change their behaviors of smoking cessation, as well as their confidence on this issue. It is possible to have success in the behavioral change by using these interventions that are peculiar to the individual.

Table 2. Smoking cessation interventions according to stages of change

<table>
<thead>
<tr>
<th>Stages</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precontemplation</td>
<td>Assess awareness and knowledge</td>
</tr>
<tr>
<td></td>
<td>Discuss pro’s and con’s</td>
</tr>
<tr>
<td></td>
<td>Learn benefits of abstinence</td>
</tr>
<tr>
<td></td>
<td>Identify reasons for usage</td>
</tr>
<tr>
<td></td>
<td>Introduce ambivalence</td>
</tr>
<tr>
<td></td>
<td>Spotlight successful quitters</td>
</tr>
<tr>
<td></td>
<td>Suggest talking with a positive ex-smoker or ex-dipper</td>
</tr>
<tr>
<td></td>
<td>Advise of need to quit and personalize the message</td>
</tr>
<tr>
<td></td>
<td>Provide personalized feedback</td>
</tr>
</tbody>
</table>
Seek out a supportive, trusted person to explore issue
Discuss possibility of change
Give self-help materials

| Contemplation          | Discuss reasons for wanting to quit tobacco
|                        | Explore good/bad reasons for using
|                        | Discuss reasons and benefits for quitting tobacco
|                        | Elicit reasons for change
|                        | Review barriers to quitting
|                        | Evaluate reasons for success and resistance to change
|                        | Review resources and supports for quitting
|                        | Discuss negative consequences of tobacco use
|                        | Discuss strategies for quitting
|                        | Set a date to think about quitting
|                        | Give self-help materials

| Preparation           | Review reasons for quitting
|                       | Counter ambivalence
|                       | Resolve ambivalence
|                       | Develop a quit plan (acceptable, accessible and effective!)
|                       | Discuss past quit attempts
|                       | Set a date for quitting
|                       | Support commitment
|                       | Encourage motivation and efforts for change
|                       | Give direct and positive message for quitting
|                       | Give self-help materials

| Action                | Review and affirm reasons for quitting
|                       | Explore relationship with tobacco
|                       | Plan for quit day & days thereafter
|                       | Review relapse triggers (people, situations, feelings, places)
|                       | Troubleshoot problem areas
|                       | Discuss obstacles to quitting
|                       | Review coping strategies for urges, cravings and withdrawal
|                       | Explore support system & other resources
|                       | Encourage cessation efforts
|                       | Focus on progress
|                       | Follow-up
|                       | Give self-help materials

| Maintenance           | Support self-efficacy
|                       | Reaffirm commitment
|                       | Support change efforts
|                       | Highlight positive benefits
|                       | Identify risks and temptations
|                       | Review and practice coping skills
|                       | Relapse prevention skills
|                       | Provide resources

References

The transtheoretical model use for smoking cessation


