

The undersigned members of the Graduate Faculty
of
Western Oregon University
and the
Administrator, Research & Evaluation Unit
Oregon Department of Corrections
have examined the enclosed thesis

URICA: Assessing Readiness to Change among Male Offenders at Intake

Presented by: Rosemary A. Neal
A candidate for the degree of

Masters of Arts in Criminal Justice

And hereby certify that in our opinion it is worthy of acceptance in partial
fulfillment of the requirements for this Master's degree

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Chairperson

Examining/Writing Committee:

Stephen G. Gibbons, Ph.D.

Committee member:

Terry E. Gingerich, Ph.D.

Committee member:

Paul T. Bellatty, Ph.D.

Graduate Programs Director:

Linda Stonecipher, Ph.D.

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ABSTRACT

URICA: ASSESSING READINESS TO CHANGE AMONG MALE OFFENDERS AT INTAKE

by

Rosemary A. Neal

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The University of Rhode Island Change Assessment (URICA) is a self-assessment tool designed to measure the level of an individual's motivation to modify their behavior as they progress through a process known as the stages of change (McConaughy, Prochaska and Velicer, 1983). In the present study, the stages of change included precontemplation, contemplation, action, and maintenance phases. This research investigated the readiness to change behavior among male offenders at intake at the Oregon Department of Corrections (ODOC) based on the stages of change approach. Readiness to change scores were evaluated to see how they related to success or failure rates in drug and alcohol, mental health, cognitive, substance abuse and educational programs provided by the ODOC. These analyses test the statistical hypothesis as to whether or not the readiness scores for the stages of change are associated with subsequent program completion. Results found that there was no significant relationship between offenders' readiness to change scores derived from the URICA and whether

offenders succeeded or failed in programs. Therefore, the hypothesis was supported that regardless of readiness scores, all groups would report similar success or failure rates in programs. In addition to the readiness scores, the current study failed to find significant relationships between individuals' average subscale scores, i.e. precontemplation, contemplation, action, and maintenance and success or failure rates in the areas of alcohol and drug, mental health, cognitive and substance abuse programs. However, findings revealed that the URICA may be useful in predicting the success or failure of offenders in educational programs who fall within the contemplation or action domains. With the exception of educational programs, it appears that the URICA is unlikely to be a useful tool when trying to ascertain whether offenders at intake are more or less likely to succeed or fail in programs such as those identified above.

CHAPTER ONE

MOTIVATION FOR BEHAVIOR MODIFICATION

1.1 Introduction

When individuals suffer from negative behaviors such as alcohol or drug abuse, anger management problems, bad dietary habits or smoking dependence, it is often difficult to gauge their level of motivation to address and modify such negative behaviors. Many individuals that are incarcerated in jails and prisons throughout the United States suffer from behavioral problems such as those identified above (Clear, Cole and Reisig, 2009). Numerous correctional facilities offer behavioral modification programs to offenders while they are incarcerated. For instance, at the Oregon Department of Corrections (ODOC), each moderate to high risk offender undergoes a series of assessments designed to identify any issues related to substance abuse, cognitive risks, educational matters or mental health and medical concerns at intake. Once the assessments have taken place, the information is evaluated and a corrections plan is developed for each offender. Accordingly, the inmate is placed into appropriate programs to provide him or her with skills that will help guide them towards a successful reentry back into society. For example, at numerous prisons in Oregon, inmates are given the opportunity to break from addictive habits by participating in intense drug and alcohol programs. In some cases, offenders are housed separately from the general inmate population in a residential facility where they undergo treatment which is designed to alter their thinking and behavioral patterns in an effort to end their dependence on drugs

and/or alcohol. In addition, programs are provided for inmates to improve their cognitive skills. Such programs are designed to develop offenders' pro-social skills and may include training on communication skills, team building, problem solving and anger management. Furthermore, the Oregon Department of Corrections reports that over 60% of inmates need to improve their education capabilities. They offer programs to inmates ranging from functional literacy (a program intended to develop offenders' reading, writing and other skills) to General Education Development (inmates who pass five exams pertaining to math, writing, science and social studies as well as literature and the arts). Moreover, special education programs are provided for offenders who suffer from disabilities.

It is often difficult to adapt new skills and sometimes individuals may not always have the self motivation to successfully complete a program that will result in a positive life style change. Fortunately, there are various tools available to assist a person change a problematic behavior to one that is positive, one being the Transtheoretical Model of Change (TTM), developed by James O. Prochaska and Carlo C. DiClemente (Prochaska, 1979; Prochaska and DiClemente, 1982).

The TTM is comprised of various components, i.e. the stages of change, the processes of change, the levels of change, decisional balance, and self-efficacy, all of which are briefly described below. The present study utilizes only the stages of change component to examine the level of readiness to change behavior among male offenders at intake into correctional facilities at the ODOC.

1.2 The Transtheoretical Model of Behavior Change

This model of behavior change is a combination of key concepts that can be utilized in the application of conduct modification in a variety of instances. The model consists of various components, i.e. the stages of change, the processes of change (experiential and behavioral processes that help an individual progress through change), the levels of change (additional problems belonging to an individual in addition to the problem behavior the individual is trying to change), decisional balance (when an individual weighs the pros and cons of making the change), and self-efficacy (an individual's confidence level relating to the behavior change). The concept "stages of change" is central to the model. Research indicates that counselors, medical doctors and other clinical practitioners play an important role in assisting an individual to alter their behavior (DiClemente, 2005). The stages of change provides an understanding of behavior change and allows interventionists to ascertain at what stage(s) their patients or clients are having difficulties and intervene and provide treatment accordingly (DiClemente, 2007). Overall, the model can be used as a basis for providing effective interventions for positive behavior changes.

1.2.1 Stages of Change

As noted above, the stages of change is the predominant construct of the TTM. The stages of change consist of a series of phases through which an individual needs to complete before ultimately arriving at a successful behavior change (DiClemente and Prochaska, 1998). However, it is important to note that progression through the stages of change occurs in a cyclical manner and individuals such as those who are suffering from addiction problems often revert to a previous stage. In other words, one may not always

progress from one stage to the next as it is possible that one might reach a particular stage but then relapse and regress to a prior stage rather than progress to the next stage.

DiClemente and Prochaska (1998:7) observe that “most successful behavior change requires several cycles through the stages of change before the individual is able to achieve sustained change. Cycling and recycling through the stages is the norm for human intentional behavior change.” The stages of change are as follows¹:

Precontemplation: Precontemplators are individuals who are either not thinking about changing their behavior or do not want to change their behavior. These individuals often feel discouraged about their situation and as a result would rather not think or discuss their problem, much less try to change it (DiClemente and Prochaska, 1998; Prochaska, Norcross and DiClemente, 1994).

Contemplation: During this stage, individuals recognize that they have a problem. They weigh the pros and cons of the problem behavior versus improving it and begin to think about changing their behavior. (DiClemente and Prochaska, 1998; Prochaska, Norcross and DiClemente, 1994).

Action: In this phase individuals are implementing any change plan they may have developed and begin to modify their behavior. For example, they cease smoking or stop using drugs.

Maintenance: If the individual is successful in sustaining the problem behavior for three to six months, then the individual moves to the maintenance stage. It is during

¹ While not included in this study, an additional stage of change labeled the Preparation Stage is defined as individuals who are keen to change their behavior and have made a firm decision to do so. In addition, they have made a commitment to a change plan which they intend to put into practice in the very near future (DiClemente and Prochaska, 1998).

this stage that the individual focuses on incorporating the new improved behavior into his or her lifestyle. (DiClemente and Prochaska, 1998).

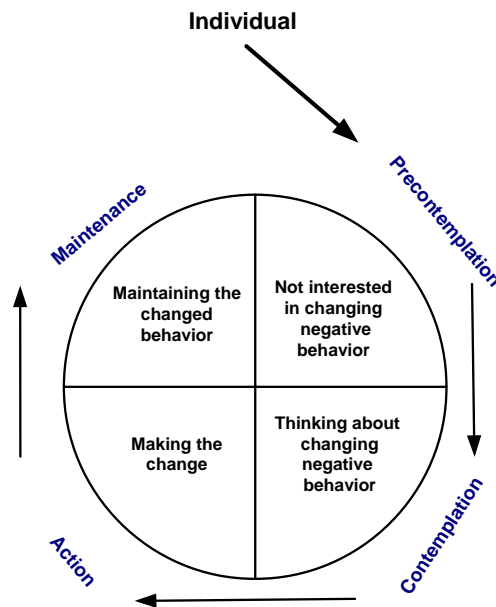


Figure 1 The Stages of Change

Adapted from Prochaska and DiClemente (1986)

1.2.2 Processes of Change

The processes of change are divided into two major components, that is, experiential (cognitive and emotional activities) and behavioral processes. Both of these elements are instrumental in assisting an individual advance through the stages of change and are identified below as defined by Prochaska and DiClemente (1986). For ease of reference, the reader is provided with examples pertaining to each.

1.2.2.1 Experiential Processes (Cognitive and Emotional Activities)

Consciousness Raising: This process involves the individual locating information relating to the behavior change. For example, an individual who is wishing to lose weight may seek information on dietary habits or exercise plans.

Dramatic Relief: The individual emotionally recognizes the negative consequences of his or her bad behavior as well as the positive outcomes of changing this poor behavior. For example, he or she may be affected emotionally by health hazards relating to smoking (DiClemente and Prochaska, 1985).

Self-reevaluation: The individual acknowledges the change to his or her self identity by visualizing the situation before and after the changed behavior. For example, if one is overweight, then he or she may see themselves as being healthier as well as slimmer after improving their eating and exercising habits.

Environmental Evaluation: The individual acknowledges that their negative behavior can impact the environment. For example, he or she realizes that their smoking habits can impact the health of others (DiClemente and Prochaska, 1985).

Self-liberation: The individual believes that he or she can change their negative behavior and commits to doing so. For example, one may participate in a weight management plan or join a drug and alcohol addiction recovery group.

1.2.2.2 Behavioral Processes

Helping Relationships: In this process the individual seeks some type of social support for making the change. For example, an individual who wants to lose weight may start exercising by walking with a friend.

Counterconditioning: This involves one doing something else instead of engaging in the negative behavior. In other words, an individual who wants to stop smoking may participate in a physical activity rather than smoke (DiClemente and Prochaska, 1985).

Contingency Management: This involves generating positive consequences that will help an individual change their negative behavior to one that is positive. For instance, if one loses a considerable amount of weight then he or she might reward oneself with new clothing.

Stimulus Control: In this particular process, the individual removes indicators that remind them of their poor behavior. For example, for the weight loser, he or she may remove all the candy, ice cream and other fattening unhealthy foods from their environment and replace them with fruits, vegetables and other healthy foods.

Social Liberation: An example of social liberation is when the community is required to abide by policy to provide a healthy environment as the accepted practice. An example of such a policy would be providing smoke-free zones.

The above processes of change have been found to be associated to the stages of change. Prochaska and DiClemente (1992:196) note that “Processes of change vary in intensity or frequency of occurrence by stage of change. Certain changes are marked by very low or high levels of change process activity. More importantly, specific processes are differentially salient in distinct stages of change.” The ten processes denoted under Experiential Processes and Behavioral Processes are less likely to be used during the precontemplation stage. However, during the contemplation stage the individual undergoes the consciousness raising process and begins to think about their behavior and

seeks information relating to positive behavior change. Additionally, they also start to self-reevaluate and begin to see themselves in a positive light once they have accomplished the behavior change. Individuals who are in the action stage of change are likely to be experiencing the self-liberation, helping relationships and contingency management processes of change. For example, they now believe that it is possible to change their negative behavior, seek social support to help them make the change as well as receive positive reinforcement from others. Additionally, as previously noted, individuals who are in the action stage of change may also be in the helping relationship or contingency management processes of change. It is also possible for processes of change to overlap stages of change. For instance, counterconditioning and stimulus control may overlap both action and maintenance stages of change (Prochaska and DiClemente, 1983). The term “stage-matched intervention” refers to the application of processes of change to the stages of change.

Table 1
The Stages of Change in which Particular Processes of Change are Emphasized the Most and the Least

Precontemplation	Contemplation	Action	Maintenance
Eight processes used the least	Consciousness raising	Self-reevaluation	Self-liberation
		Helping relationship	Reinforcement management
			Counterconditioning
			Stimulus control

Processes emphasized in two stages are shown overlapping both stages. (taken from Prochaska and DiClemente, 1986).

1.2.3 Levels of Change

The third construct within the TMM framework is the levels of change. Of the three constructs, the levels of changes are the least studied. This construct refers to any problematic factors that an individual may be experiencing that may “interfere or facilitate the process of change” (DiClemente and Prochaska, 1998:4). Such complicating problems might include domestic violence and other family related problems, substance abuse or some type of psychiatric problem. The levels of change consist of symptom/situational; maladaptive cognitions; interpersonal problems; intrapersonal problems and systems/family problems. DiClemente and Scott (1997) note that when levels of change are identified and individuals receive appropriate intervention services, it often results in more favorable treatment outcomes.

While the three basic constructs of the transtheoretical paradigm are the stages of change, the processes of change and the levels of change, it should be noted that two other concepts also play an important role in the TTM. These are decisional balance and self-efficacy which are briefly described below.

1.2.4 Decisional Balance

This construct refers to the motivational level of an individual to change behavior. Prochaska and DiClemente (1992:192) describe motivation to change as typically being “both the reason for change and the strength of the desire or comment to make the change.” For instance, one’s motivational level will depend upon the perceived pros and cons of making the change. The decisional balance concept can be related to the stages of change. Prochaska and DiClemente (1992) report that the pros and cons

relevant to behavior change can be seen to be associated to the earlier stages of change. For example, the pros of smoking remain quite important during the contemplation stage, whereas the cons are less meaningful at that time. However, as the individual enters the latter stages of change such as the action stage, the pros begin to decline and the cons increase in importance. Ultimately both the pros and cons “recede in importance with the decisional balance firmly established against smoking” (DiClemente and Prochaska, 1985:192).

1.2.5 Self-efficacy

Self-efficacy can be described as an individual’s confidence level during the behavior change so that one can face any temptation that may present itself during the process of changing behavior. Such temptations may include craving for a cigarette or an emotional reaction, e.g. eating “comfort food” such as unhealthy snacks which cause the individual to regress to the negative behavior.

Prochaska and DiClemente (1992) note that Bandura’s social cognitive theory suggests that “...self-referent thought is an important mediate between knowledge and action. Percepts of personal efficacy influence motivations and behavior.... Self efficacy evaluations are assumed to influence choice, effort expenditure, thoughts, emotional reactions and behavioral performance” (Prochaska and DiClemente, 1992:193).

To summarize, the Transtheroretical Model is comprised of multiple constructs, i.e. the stages of change, the processes of change and the levels of change all of which interact with one another. It also takes into account other concepts such as decisional balance and self-efficacy. The model is widely used as a basis for providing effective interventions for positive behavior changes and can be applied to a variety of behaviors

and populations including inmates in correctional facilities. However, while the TTM is widely used, there is also a need to assess an individual's readiness to change so that professionals know where to start. One such assessment tool is the University of Rhode Island Change Assessment (URICA).

1.3 The University of Rhode Island Change Assessment (URICA)

The URICA is a self assessment tool which was developed by McConaughy, Prochaska and Velicer (1983) to assess the levels of a person's readiness to change as they progress through the stages of change in modifying their behavior. The URICA version used in the current study consists of four subscales, i.e. precontemplation, contemplation, action, and maintenance. The questionnaire (see Appendix A) consists of 32 questions in which each item is allocated a 5-point Likert scale ranging from "strongly agree" to "strongly disagree". Survey respondents are required to indicate how closely they agree or disagree with each question. Each response is assigned to one of the subscales, which, in turn, is used to calculate a score which indicates the level of readiness to change.

As previously mentioned, the present study used the URICA as the vehicle to measure incoming inmates' motivation to modify their behavior based on the stages of change model. However, much of the research explored by the writer involves the stages of change concept pertaining to a variety of problematic behaviors such as smoking, poor dietary habits, anger management and substance abuse among both forensic and non-forensic populations. This research is reviewed in the following chapter.

CHAPTER 2

LITERATURE REVIEW

As indicated in Chapter 1, the stages of change is the central construct of the Transtheoretical Model and has been utilized to help numerous individuals change their negative behavior to one that is positive. Many articles have been written that relate to how the stages of change concept has been applied to a diverse assortment of problematic behaviors. Delahanty, DiClemente, Havas, and Langenberg (2008) examined how smoking habits interacted with dietary attitudes and demographics of low-income women who participated in a stage of change dietary intervention study. Based on the stages of change, the dietary intervention focused on three specific dietary behaviors i.e. reducing intake of fat, increasing the consumption of fruits and vegetables, and increasing dietary fiber intake. Results of this study indicated that low-income women were less likely to change their dietary habits and it was also found that women who received dietary intervention relating to the three targeted diet behaviors evidenced more change over time than those who did not receive intervention. In addition, subjects who were currently smoking had a higher intake of overall total calories, higher percentages of calories from alcohol and sweets and lower percentages of calories from protein compared to nonsmoking subjects. Moreover, women who had never smoked changed significantly in all three dietary behaviors compared to non smokers who were not treated. This study illustrates that the stages of change model can be useful for providing appropriate interventions to assist individuals in their development of healthier eating habits. By

identifying a patient's position in the change process, interventionists can plan an appropriate treatment program.

In addition to the impact of the stages of change on diet and smoking habits, a study was conducted by Stotts, DiClemente, Carbonari and Mullen (1996) which investigated the process of behavior change in pregnant women who had stopped smoking during pregnancy and non-pregnant women who were in the process of stopping the smoking habit. The study included two aspects of the Transtheoretical Model relating to the change of behavior. First, it incorporated stages of change, i.e. precontemplation, contemplation, action, and maintenance. Second, it included the two types of processes of change i.e. experiential and behavioral processes. Additionally, the study measured participants' self confidence to abstain from smoking.

Results of this study revealed that reported levels of experiential and behavioral change processes were significantly lower in the action stage for pregnant women compared to non-pregnant women. Thus, while pregnant women were not smoking they did not engage in coping activities at levels appropriate to the action stage of the process of change to successfully abstain from smoking. In addition, pregnant women reported higher levels of self confidence to abstain from smoking than non-pregnant women.

Researchers have also reported that the stages of change model can be used to measure exercise motivation levels. Wyse, Mercer, Ashford, Buxton and Gleeson (1995) examined the validity and utility of the Stages of Exercise Behavior Change (SEBC) scale relating to exercise behavior in young adults. The SEBC scale is based on the stages of change model and was adapted to represent exercise behavior. It suggests that individuals engaging in a behavior change can be categorized into one of the following

stages: precontemplation (subjects did not exercise); contemplation (subjects did not currently exercise but intended to begin exercising within six months); preparation (subjects who did not exercise more than three times per week); action (subjects who had begun to exercise regularly within the past 6 months); and maintenance (subjects that had exercised regularly for longer than six months). For this study, these five stages were collapsed into the following categories of exercise behavior change:

precontemplation/contemplation, preparation, and action/maintenance. Participants' levels of exercise behavior, body mass and self assurance relating to their confidence in exercising were evaluated. Results found males were in the higher level of SEBC in all categories when compared to females. The study also concluded that there were significant differences in self reported levels of exercise behavior. Subjects in the action/maintenance categories scored higher than those in the preparation category and those in the preparation category scored higher than those in the precontemplation/contemplation categories. In addition, significant differences were found relating to self efficacy. Higher levels of self efficacy were found in subjects from the action/maintenance categories while lower levels of self efficacy were found in subjects from the precontemplation/contemplation categories. Additional results verified the validity and utility of the SEBC scale.

The stages of change concept has also been used for measuring readiness to change among those suffering from a mental health disorder. For example, Pantaloni and Swanson (2003) investigated the motivational readiness for behavior change in psychiatric and dually diagnosed patients (with the exception of those suffering from mental retardation or dementia). Interestingly, results found that those individuals who

were classified as having low readiness to change attended more therapy groups while hospitalized. The researchers also found that low motivated patients also attended more outpatient clinic appointments during the first month after being discharged from hospital.

Carey, Maisto, Carey and Purnine (2001) examined whether readiness-to-change patterns in individuals suffering from severe and persistent mental illness (SPMI) as well as substance abuse could be measured in a reliable and valid manner. The following four research areas were addressed: (1) researchers predicted that consistency would be found with regard to self report of readiness-to-change; (2) psychiatric diagnosis, cognitive status, and positive and negative symptoms were evaluated to see how they affected the reliability indices; (3) ascertain whether there is valid evidence for motivational measures based on the pattern of relationships among the seven scale scores from the three measures of readiness-to-change instruments; and (4) researchers predicted there would be no significant correlations with measures of positive and negative symptoms, cognitive and functional status, social desirability, and demographic indices. Eighty-four subjects who suffered from substance abuse as well as an SPMI participated in the study. Participants were administered the following readiness-to-change instruments: Stages of Change Readiness and Treatment Eagerness Scale, Decisional Balance Scale, and the Alcohol and Drug Consequences Questionnaire. These readiness to change measures yielded seven subscales, i.e. the Stages of Change Readiness and Treatment Eagerness scale (ambivalence about change, recognition of substance related problems and taking steps); the Decisional Balance Scale (pros of using and the cons of using); and the Alcohol and Drug Consequences Questionnaire (costs of quitting and the benefits of

quitting). Additionally, subjects were assessed by the following diagnostic instruments: Mini-Mental State Exam; Structured Clinical Interview for the DSM-IV; Positive and Negative Symptom Scale and the Social Desirability Scale. Results found that six of the seven subscales from the three measures of readiness-to-change instruments indicated excellent internal consistency. Additionally, reliability indices were found to be comparable on subjects who had been defined by cognitive function, positive and negative symptoms as well as diagnosis. Moreover, evidence of validity of motivational measures was found based on the findings of interrelationships amongst the seven subscale scores. Furthermore, there were no significant relationships found with regard to the demographic variables and indices of psychiatric status. These results indicate that measuring readiness to change by individuals who suffer from both an SPMI and substance abuse can be quantified.

In addition to being utilized in the areas of smoking, weight management and mental health issues, the TTM/stages of change approach has also been used with forensic populations. Wells-Parker, Kenne, Spratke and Williams (2000) measured self-efficacy and motivation to change for controlling drinking and drinking/driving among 670 Driving Under the Influence offenders who were required to attend court mandated treatment programs. A questionnaire was administered both prior to treatment and after treatment. Results revealed that higher action and self-efficacy scores correlated to lower recidivism rates. Conversely, those individuals who were in the contemplation stage had higher recidivism rates than those in other stages. In addition, Freeman, Liossis, Schonfeld, Sheehan, Siskind and Watson (2005) looked at the self-efficacy and stages of change levels on repeat offenders. They examined readiness to change as well as the

ability to control drinking and drunk driving behaviors among recidivist drivers. Results found that while most of the recidivists were motivated to change their drunk driving habits they were not motivated to change their drinking behavior.

Application of the stages of change technique has also been applied in determining the readiness for change in substance abuse offenders who are either incarcerated or on probation. For example, Bassel, Schilling, Ivanoff, Chen, Hanson and Bidassie (1998) examined the psychometric properties of the URICA when utilized with incarcerated women who used drugs. The study focused on three major areas: (1) the usefulness of the URICA in determining the stages of change in female offenders who used drugs; (2) whether subgroup profiles could be developed as a result of cluster analysis utilizing the URICA scale; and (3) whether there would be any differences among the women relating to demographics, psychological symptoms or patterns of drug use. In addition to the URICA, other assessment tools were used in the study, i.e. the Alcohol Use Disorder Test, the Brief Symptom Inventory (BSI) and the Center for Epidemiological Studies of Depression Scale. Participants were identified with a stage of change profile and were categorized into five clusters, i.e. denial, uninvolved, ambivalent, decision-making and participation. The results found that subjects were more likely to be depressed and suffered from higher levels of psychological distress if they were actively involved in change or had already tried change. The findings indicate that female inmates who have tried to change their behavior but have experienced problems in maintaining positive behavioral changes were more likely to suffer from more psychological symptoms. In contrast, those who did not recognize their drug problem and who did not try to change their behavior were less likely to report higher

levels of psychological problems. Further, results from this study indicate that the URICA is a valid and reliable assessment tool to assess the stages of change among incarcerated women who had reported drug use.

Another study that utilized the URICA and dealt with offenders was conducted by Duvall, Oser and Leukefeld (2008). These researchers investigated the relationship between rural probationers' readiness to change and common behaviors relating to drug use i.e. possession of drugs/drug paraphernalia, frequency of marijuana use, and driving while intoxicated by drugs or alcohol. Sixteen items from the URICA were tailored for subjects' willingness to change their substance abuse behavior. Results from this study revealed that over time i.e. from baseline to 3 month follow-up, subjects overall readiness to change scores increased. In addition, reductions in marijuana use, possession of drug related paraphernalia and DUI were found across the same time frame.

Overcoming substance addiction is very difficult. Helping individuals who are either addicted or suffer from alcohol or drug abuse problems is an important role for interventionists. Thus, based on the studies relating to substance abuse as outlined above, utilizing the stages of change technique may prove to assist interventionists to assist in providing a healthier change of lifestyle for those who suffer from substance abuse.

It has been suggested that the stages of change model may also be useful in dealing with offenders who have anger management problems. For example, Williamson, Day, Howells, Bubner and Jauncey (2003) assessed the psychometric properties and utility relating to the stages of change in modifying anger among a population of male inmates. Williamson et.al. utilized a modified style of the Readiness to Change Questionnaire (RCQ), an adapted version of the URICA that included only the

precontemplation, contemplation, and action scales. These researchers measured stages relating to anger problems amongst approximately 418 Australian/New Zealander male inmates. They concluded that their stages of change questionnaire could be useful in ascertaining appropriate offenders for anger management programs.

Given the preceding study, the stages of change model might be useful for both perpetrators and victims of domestic violence. For example, Daniels and Murphy (1997) propose that the stages of change approach may be beneficial when applied to domestic violence, in particular abuse offenders. These researchers suggest that the approach may help in the following ways: “(a) broaden the cognitive behavioral view of the change process from the commonly considered aspects of active behavior change and maintenance of gains, to also include contemplation of change, decision and commitment to change, and planning for change; (b) reconceptualize resistance as incongruence between intervention techniques and the client’s current stage or readiness for change; (c) provide initial strategies for working with individuals who are not yet ready for active behavior change; and (d) offer a conceptual model for research on the process of change and the efficacy of interventions for batterers” (Daniels and Murphy, 1997:125). However, it should be noted that they feel that the model is more likely to be effective when used in conjunction with other community intervention procedures such as prevention programs offered by community organizations and treatment plans such as counseling.

As can be seen from the information above, researchers have looked into the effectiveness of the stages of change model with victims’ experiences of domestic violence. These victims of violence, who are predominantly women, often suffer from

psychological problems as a result of being abused. Edwards, Houry, Kemball and Harp (2006) conducted a study relating to mental health problems such as post traumatic stress disorder (PTSD) symptoms and suicide ideation and depression among low income African American women who had been assaulted by their intimate partner. Results found that 95% of participants were in the precontemplation and contemplation stages of change. Edwards et.al. suggest that abused women often have problems acknowledging they are in a dangerous and difficult relationship. Also, many abused women make numerous attempts to leave their abusive partners before a successful break is made. Consequently, this may cause them to alternate between the action and earlier stages in the stages of change process. Additional findings revealed that women who were at further stages of readiness to change were found to suffer from more symptoms of depression, PTSD, and suicide ideation. Edwards et.al. suggest that women may become more distressed because they are fearful of being further harmed or killed by their partner if they attempt to leave the relationship. Research indicates that women are more at risk for violence from their abusive partners after the women attempt to leave. (Burman, 2003).

While the TTM/stages of change model may be useful when dealing with domestic violence, Willoughby and Perry (2002) suggest that it may also be applicable when providing intervention treatment to violent youth. Although the authors do not provide empirical support relating to the model's effectiveness, they do propose that stage-matched interventions are beneficial in that they can reduce an adolescent's risk of violence and thus help youth become more motivated as well as lessen treatment time.

This chapter has reviewed some of the literature available relating to the concept of stages of change. As noted earlier, the URICA can be utilized to derive readiness scores from the various subscales of the stages of change that can be used for treatment intervention and, in some cases, predict outcomes. The present study examined the readiness scores of male offenders at intake to ascertain whether or not the scores are associated with program completion. In addition to the readiness scores, the study also looked at whether individuals' average scores on the stages of change subscales, i.e. precontemplation, contemplation, action and maintenance, were likely to be associated with success or failure rates in alcohol and drug, mental health, cognitive, substance abuse and education programs for offenders. Findings and evaluations of the data obtained from inmates during the intake process at the ODOC are presented in Chapter 3.

CHAPTER 3

METHODS

3.1. Participants

Data were collected during 2006 using the University of Rhode Island Change Assessment (URICA) questionnaire. The URICA questionnaire was distributed to 1,000 participants and 730 responses were received. The participants were male inmates from the Oregon Department of Corrections who were undergoing the intake process at the Coffee Creek Correctional Facility located at Wilsonville, Oregon.

3.2 Materials

As previously noted, the URICA is an assessment tool utilized to measure the stages of change through which individuals advance in modifying their behavior. The URICA is a self-report survey consisting of 32 questions and each question is allocated a 5-point Likert scale ranging from strongly agree to strongly disagree (see Appendix A). Survey respondents were requested to indicate how closely they agreed or disagreed with each question. Each response was assigned to one of the following four subscales, i.e. precontemplation, contemplation, action, and maintenance. Calculations were performed to produce a score indicating the level of readiness to change. It should be noted that a study conducted by DiClemente and Hughes (1990) on outpatient alcoholism treatment determined that there were some items on the URICA that did not correlate with the factors. As a result, DiClemente and Hughes dropped one item from each subscale, which, in turn, produced a 28-item measure consisting of 7 items per subscale. As with

many other studies, the current research administered the 32-scale survey to participants and excluded the items that did not load well on the factor, i.e. item 31 (precontemplation); item 4 (contemplation); item 20 (action) and item 9 (maintenance) (see Appendix B).

The data collected from these questionnaires were utilized to calculate readiness scores which were compared to the success/fail rates of alcohol and drug, mental health, cognitive, substance abuse and educational programs provided to inmates by the Oregon Department of Corrections.

3.3 Readiness Score

The readiness score, as defined by the URICA, indicates an individual's level of readiness to change. The score is calculated by computing the means of an individual's responses for each of the subscales, i.e. precontemplation, contemplation, action, and maintenance (see Appendix B). For example, for the precontemplation subscale, responses to items 1, 5, 11, 13, 23, 26 and 29 from the URICA questionnaire were summed and then divided by seven to calculate the mean of this subscale for each respondent. Upon calculating the means for this subscale as well as the means for each of the other subscales, the means for contemplation, action and maintenance are totaled and the precontemplation mean is subtracted from this total to obtain the readiness to change score.

Tables 3.1, 3.2, 3.3 and 3.4 below identify questions from the URICA questionnaire that relate to each subscale.

Table 3.1 – Questions pertaining to Precontemplation Subscale

1.	As far as I'm concerned, I don't have any problems that need changing.
5.	I'm not the problem one. It doesn't make much sense for me to be here.
11.	Being here is pretty much a waste of time for me because the problem doesn't have to do with me.
13.	I guess I have faults, but there's nothing that I really need to change.
23.	I may be part of the problem, but I don't really think I am.
26.	All this talk about psychology is boring. Why can't people just forget about their problems?
29.	I have worries but so does the next guy. Why spend time thinking about them?

For the precontemplation subscale, responses to items 1, 5, 11, 13, 23, 26 and 29 were summed and divided by seven to calculate the mean of this subscale for each respondent.

Table 3.2 – Questions pertaining to Contemplation Subscale

2.	I think I might be ready for some self improvement.
8.	I've been thinking that I might want to change something about myself.
12.	I'm hoping this place will help me to better understand myself.
15.	I have a problem and I really think I should work at it.
19.	I wish I had more ideas on how to solve the problem.
21.	Maybe this place will be able to help me.
24.	I hope that someone here will have some good advice for me.

For the contemplation subscale, responses to items 2, 8, 12, 15, 19, 21 and 24 were summed and divided by 7 to calculate the mean of this subscale for each respondent.

Table 3.3 – Questions pertaining to Action Subscale

3.	I am doing something about the problems that had been bothering me.
7.	I am finally doing some work on my problem.
10.	At times my problem is difficult, but I'm working on it.
14.	I am really working hard to change.
17.	Even though I'm not always successful in changing, I am at least working on my problem.
25.	Anyone can talk about changing; I'm actually doing something about it.
30.	I am actively working on my problem.

For the action subscale, responses to items 3, 7, 10, 14, 17, 25 and 30 were summed and divided by 7 to calculate the mean of this subscale for each respondent.

Table 3.4 – Questions pertaining to Maintenance Subscale

6.	It worries me that I might slip back on a problem I have already changed, so I am here to seek help.
16.	I'm not following through with what I had already changed as well as I had hoped, and I'm here to prevent a relapse of the problem.
18.	I thought once I had resolved my problem I would be free of it, but sometimes I still find myself struggling with it.
22.	I may need a boost right now to help me maintain the changes that I've already made.
27.	I'm here to prevent myself from having a relapse of my problem.
28.	It is frustrating, but I feel I might be having a recurrence of a problem I thought I had resolved.
32.	After all I had done to try to change my problem, every now and again it comes back to haunt me.

For the maintenance subscale, responses to items 6, 16, 18, 22, 27, 28 and 32 were summed and divided by 7 to calculate the mean of this subscale for each respondent.

3.4 Analysis of the Data

Logistic regression was used to analyze the data in this study. Logistic regression is a type of statistical model that is normally used when the dependent variable is a dichotomous variable, i.e. a variable with two categories, for example, yes/no or male/female. This type of regression can be used to ascertain whether there is any association between a dichotomous dependent variable and independent variables and allows one to estimate the probabilities of , for example, healthy or unhealthy. It should be noted that logistic regression differs from linear regression in that the range of the dependent variable is limited between zero and one, whereas linear regression may range beyond one and below zero. Given that the current study consists of categorical independent variables, i.e. precontemplation, contemplation, action, and maintenance and a dichotomous dependent variable, i.e. success/failure, it was decided that logistic

regression was the most appropriate statistical model to utilize in examining the data for this study.

CHAPTER 4

FINDINGS

Participants were classified within four domains of the stages of change i.e. precontemplation, contemplation, action, and maintenance. It should be noted at this point that, in some instances, not all incarcerated individuals complete programs. This may be as a result of an action or decision by either the inmate or the ODOC. For example, an inmate may voluntarily discontinue a program or he may be terminated from a program for poor or inappropriate behavior and placed in disciplinary segregation. On the other hand, he may not complete a program because of an administrative movement initiated by the ODOC. For instance, an inmate may be moved to another correctional facility for bed space or security reasons or perhaps he has a job-related change which conflicts with the scheduling of the program he was participating in. Other reasons may also include an inmate suffering from health related problems or the inmate having to attend court. Because of these types of administrative movements it was decided that the analysis be performed in two different categories, i.e. “With Admin” and “Without Admin”. For the purposes of this study and for ease of reference, “With Admin” shall be referred to as including participants who experienced administrative movements initiated by ODOC and “Without Admin” refers to participants who did not incur any such administrative moves.

As previously explained in this report, readiness scores were calculated for each participant and logistic regression analysis was performed to ascertain whether these

scores were associated with successes or failures in alcohol and drug, mental health, cognitive, substance abuse and education programs. Results were not significant ($p > .10$) for each of the domains therefore readiness scores did not reveal whether an individual was likely to succeed or fail in the listed programs (see Table 4.1).

Table 4.1 – P Values for Readiness Scores

	Without Admin	With Admin
Alcohol and Drug	.1623	.8635
Mental Health	.6216	.6255
Cognitive	.5839	.5544
Substance Abuse	.2000	.2115
Education	.8270	.8328

($p = .10$)

As a result of these findings, logistic regression analysis was performed on each individual's average subscale score to ascertain whether there was a relationship between their scores and whether they succeeded or failed in alcohol and drug, mental health, cognitive, educational, and substance abuse programs provided by the ODOC.

Table 4.2 presents probability values for precontemplation, contemplation, action, and maintenance means in each program for those inmates without administrative intervention. These values reveal there is no support to indicate a relationship between individuals' average subscale scores and whether participants are likely to succeed or fail in alcohol and drug, mental health, cognitive, and substance abuse programs. For instance, for the "Without Admin" group, probability values for the precontemplation category for each program type are reported as follows: Alcohol and Drug .3784; Mental Health .7536; Cognitive .8402; Substance Abuse .8008 and Education .8172. Since all of these values are above the alpha level of .10 (the alpha level set for this study) this analysis indicates that there is no association between the respondents who fell within the

precontemplation category and whether they succeeded or failed in any of the above mentioned programs. The same can also be said for those individuals who were in the maintenance category. The probability values for this category were: Alcohol and Drug .2599; Mental Health .4773; Cognitive .7609; Substance Abuse .8047 and Education .5449. Again, it can be seen that these values are over the .10 alpha level, thus indicating that there is no association between respondents who were in the maintenance category and whether they succeeded or failed in the aforementioned programs. However, interestingly, with regard to educational programs, results from contemplation and action domains indicate that a significant association exists as to whether participants are likely to succeed or not succeed, i.e. probability values for contemplation and action categories were .0960 and .0689 respectively.

Table 4.2 – “Without Admin” Domain P Values Comparing Program Successes and Failures

	Precontemplation	Contemplation	Action	Maintenance
Alcohol and Drug	.3784	.1779	.8633	.2599
Mental Health	.7536	.8550	.3669	.4773
Cognitive	.8402	.6861	.9473	.7609
Substance Abuse	.8008	.9530	.1855	.8047
Education	.8172	.0960	.0689	.5449

(p=.10)

Table 4.3 exhibits probability values for the precontemplation, contemplation, action, and maintenance domains in each program category for those inmates who experienced administrative intervention. As with the “Without Admin” category, results suggest that there was no relationship found between individuals who are categorized in these domains and whether they are likely to fail or succeed in alcohol and drug programs, mental health, cognitive and substance abuse programs. For example, probability values that point to a non-significant relationship are reported as follows: for

the precontemplation category: Alcohol and Drug .4184; Mental Health .8935, Cognitive .6375; Substance Abuse .7473 and Education .6877; for the maintenance category: Alcohol and Drug .5367; Mental Health.5751; Cognitive .6349; Substance Abuse .9110 and Education .5613. However, again, as in the “Without Admin” category, results for the contemplation and action domains in the “With Admin” category reveal there is a significant association between the individuals who fall within these domains and whether they succeed or fail in educational programs, i.e. contemplation .0716 and action .0554. These results therefore indicate that the URICA could possibly be useful in predicting whether participants succeed or fail in education classes.

Table 4.3 – “With Admin” Domain P Values Comparing Program Successes and Failures

	Precontemplation	Contemplation	Action	Maintenance
Alcohol and Drug	.4184	.7478	.4284	.5367
Mental Health	.8935	.9148	.3053	.5751
Cognitive	.6375	.7142	.9301	.6349
Substance Abuse	.7473	.8956	.3270	.9110
Education	.6877	.0716	.0554	.5613

(p=.10)

The overall findings in this study indicate that there is no statistically significant relationship between individuals’ average scores on each of the four subscales of the stages of change and whether inmates pass or fail alcohol and drug, mental health, cognitive, and substance abuse programs. For correctional programming, comparisons of domain scores can be seen between those individuals who were not involved in any administrative movement (Table 4.2 “Without Admin”) and those participants who received some form of administrative intervention (Table 4.3 “With Admin”).

Therefore, for the most part, there is no support for the hypothesis that the URICA can be utilized for predicting offenders’ successes or failures in these programs. However,

findings reveal that the URICA may be useful in determining the educational outcomes for offenders who fall within the contemplation and action domains.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

The Transtheoretical Model of Behavior Change is comprised of several dimensions, i.e. the stages of change, the processes of change, the levels of change, decisional balance and self-efficacy. The stages of change is the central element of the model and previous research suggests that it can be used to predict treatment outcomes for individuals seeking to change their negative behavior, for example, smoking cessation, weight management and drug use (McConaughy, Prochaska and Velicer, 1973; Prochaska and DiClemente (1992); Duvall, Oser and Leukefeld (2008)). The present study attempted to determine whether the URICA, a self assessment tool designed to measure the level of an individual's readiness to change, i.e. precontemplation, contemplation, action, and maintenance, is an effective tool to use when trying to ascertain whether inmates are likely to succeed or fail in alcohol and drug, mental health, cognitive, substance abuse and education programs while incarcerated within the Oregon Department of Corrections prison system. Findings revealed that there was no relationship between inmates' readiness to change scores derived from the URICA and whether they succeeded or failed in programs. Therefore, the hypothesis that regardless of readiness scores, all groups would report similar success or failure rates in programs was supported. In addition, the current study failed to find significant relationships between individuals' scores in the precontemplation, contemplation, action, and maintenance domains and success or failure rates in the areas of alcohol and drug,

mental health, cognitive, and substance abuse programs. However, results indicate that it may be associated with the success or failure in educational programs of offenders who fall within the contemplation or action domains.

With the exception of educational programs, it appears that the URICA is not a useful tool to utilize when trying to determine whether inmates, during their intake evaluations into ODOC's correctional system, are more or less likely to succeed or fail programs such as those noted above and provided by the ODOC. In general, URICA's stages of change readiness scores and individuals' average scores on each subscale are not associated with the outcome of program successes or failures.

Although this research finds that the URICA may be useful in determining educational program outcomes for offenders who fall within the contemplation and action domains of the stages of change, there are several limitations that apply to this study. First, while the URICA is a suitable tool to utilize in measuring the stages of change, it is nevertheless, based on self-reporting which, in turn, can introduce bias into the findings. Second, it is possible that one's stage designation may be "on the fence". In other words, an individual's score for one stage may be very close to the border of the next stage. For example, a precontemplation score might be very close to being a contemplation score which could under report the number of inmates that are close to ready to consider a move to make a meaningful change in their behavior. Conversely, respondents may still be "on the fence" but actually be in the mode of "I don't need to change" in answering the URICA questions. While results from the URICA provide adequate data in which to place respondents into a representative category as to their inner focus on behavior changes, it is not an exact measurement of readiness to change. Third, offenders who are

keen to get paroled or those with less sentence time may be more motivated to change their behavior than those who have lengthy prison sentences.

A fourth limitation pertains to the problem of utilizing the URICA to measure inmates' level of stage of change at intake. In other words, is intake the right time to use the URICA to try to predict the outcomes of inmates participating in programs? Very often, individuals are very nervous and upset upon entering the prison system. For them, it is a new and often scary environment. Moreover, these new inmates are being evaluated and may feel overwhelmed with the numerous tests they have to complete such as the Learning Needs Screening, the Intake Reading and Math Appraisal, Substance Abuse Screening as well as the Personality Assessment Inventory. These tests allow for a corrections plan to be developed for each individual in order to provide him or her with some of the necessary skills and programming to assist them in their efforts towards a meaningful and successful reentry back into the community. Furthermore, many offenders are anxious because they do not know which prison they will be assigned to and they have not yet settled into the prison "way of life".

Perhaps in future research the URICA should be administered after offenders have been processed, assigned to permanent housing, have become more familiar with the prison environment and have been allowed the time to adapt to a regular routine. Future consideration should also be given to the time span between the administering of the URICA to inmates and when they begin their respective programs. For example, inmates may be more motivated to change their behavior when they are closer to starting their respective programs rather than when they have first entered prison. The writer suggests that inmates could be measured just prior to starting a program.

Thought should also be given to how the URICA is administered to inmates. For example, rather than distributing the URICA to inmates along with numerous other assessment forms to be completed as was done for this study, perhaps it should be administered to smaller groups of inmates with a researcher present to assist inmates with any questions or input they may need.

The current study is also limited in that it is gender specific, i.e. only males were assessed and therefore it is recommended that future research include female offenders.

Finally, this analysis did not include investigating any differences between first time incarcerated offenders and recidivists. It is possible that first time offenders may feel more motivated to change their behavior as opposed to those who have repeatedly been convicted of a crime and vice versa. For example, first time incarcerated offenders may realize that a behavioral change is necessary to avoid the revolving door of incarceration, freedom and re-incarceration. Future research should be considered to evaluate the impact of the URICA on the differences between first time incarcerated offenders and repeat offenders as to their readiness to change to improve their lifestyle and avoid future criminal actions.

In conclusion, there have been very few studies conducted which have involved the application of the URICA to the stages of change concept in a prison environment. Despite its limitations, the present study suggests future research be conducted involving incarcerated offenders. More research that addresses some of the limits of this study is needed. Administering the URICA to inmates at a time other than at intake may produce results that are more positive. Women could be included in future studies to ascertain whether there is any variation between males and females, and perhaps future research

could look at any differentiation between first time offenders and recidivists. Working with offenders is sometimes a difficult endeavor and identifying any areas in which an interventionist can help an inmate develop skills towards a productive and successful institutional stay as well as reentry back into the community is a very beneficial contribution to the offender, to correctional institutions, and to society.

APPENDIX A

URICA ASSESSMENT FORM

This questionnaire is to help us improve services. Each statement describes how a person might feel when starting therapy or approaching problems in their lives. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, make your choice in terms of how you feel right now, not what you have felt in the past or would like to feel. For all statements that refer to your “problem”, answer in terms of what you write on the “**PROBLEM**” line below.

Name: _____

Problem: _____

Measurement Scale

There are FIVE possible responses to each of the items in the questionnaire:

1 = Strongly Disagree

2 = Disagree

3 = Undecided

4 = Agree

5 = Strong Agree

Darken the bubble that best describes how much you agree or disagree with each statement.

1. As far as I’m concerned, I don’t have any problems that need changing.
2. I think I might be ready for some self improvement.
3. I am doing something about the problems that had been bothering me.
4. It might be worthwhile to work on my problem.
5. I’m not the problem one. It doesn’t make much sense for me to be here.
6. It worries me that I might slip back on a problem I have already changed, so I am here to seek help.
7. I am finally doing some work on my problem.
8. I’ve been thinking that I might want to change something about myself.

9. I have been successful in working on my problem but I'm not sure I can keep up the effort on my own.
10. At times my problem is difficult, but I'm working on it.
11. Being here is pretty much a waste of time for me because the problem doesn't have to do with me.
12. I'm hoping this place will help me to better understand myself.
13. I guess I have faults, but there's nothing that I really need to change.
14. I am really working hard to change.
15. I have a problem and I really think I should work at it.
16. I'm not following through with what I had already changed as well as I had hoped, and I'm here to prevent a relapse of the problem.
17. Even though I'm not always successful in changing, I am at least working on my problem.
18. I thought once I had resolved my problem I would be free of it, but sometimes I still find myself struggling with it.
19. I wish I had more ideas on how to solve the problem.
20. I have started working on my problems but I would like help.
21. Maybe this place will be able to help me.
22. I may need a boost right now to help me maintain the changes that I've already made.
23. I may be part of the problem, but I don't really think I am.
24. I hope that someone here will have some good advice for me.
25. Anyone can talk about changing; I'm actually doing something about it.
26. All this talk about psychology is boring. Why can't people just forget about their problems?
27. I'm here to prevent myself from having a relapse of my problem.

28. It is frustrating, but I feel I might be having a recurrence of a problem I thought I had resolved.
29. I have worries but so does the next guy. Why spend time thinking about them?
30. I am actively working on my problem.
31. I would rather cope with my faults than try to change them.
32. After all I had done to try to change my problem, every now and again it comes back to haunt me.

APPENDIX B
SUBSCALE QUESTIONS

Precontemplation

1.	As far as I'm concerned, I don't have any problems that need changing.
5.	I'm not the problem one. It doesn't make much sense for me to be here.
11.	Being here is pretty much a waste of time for me because the problem doesn't have to do with me.
13.	I guess I have faults, but there's nothing that I really need to change.
23.	I may be part of the problem, but I don't really think I am.
26.	All this talk about psychology is boring. Why can't people just forget about their problems?
29.	I have worries but so does the next guy. Why spend time thinking about them?
31. Omit	I would rather cope with my faults than try to change them.

Contemplation

2.	I think I might be ready for some self improvement.
4. Omit	It might be worthwhile to work on my problem.
8.	I've been thinking that I might want to change something about myself.
12.	I'm hoping this place will help me to better understand myself.
15.	I have a problem and I really think I should work at it.
19.	I wish I had more ideas on how to solve the problem.
21.	Maybe this place will be able to help me.
24.	I hope that someone here will have some good advice for me.

Action

3.	I am doing something about the problems that had been bothering me.
7.	I am finally doing some work on my problem.
10.	At times my problem is difficult, but I'm working on it.
14.	I am really working hard to change.
17.	Even though I'm not always successful in changing, I am at least working on my problem.
20. Omit	I have started working on my problems but I would like to help.
25.	Anyone can talk about changing; I'm actually doing something about it.
30.	I am actively working on my problem.

Maintenance

6.	It worries me that I might slip back on a problem I have already changed, so I am here to seek help.
9. Omit	I have been successful in working on my problem but I'm not sure I can keep up the effort on my own.
16.	I'm not following through with what I had already changed as well as I had hoped, and I'm here to prevent a relapse of the problem.
18.	I thought once I had resolved my problem I would be free of it, but sometimes I still find myself struggling with it.
22.	I may need a boost right now to help me maintain the changes that I've already made.
27.	I'm here to prevent myself from having a relapse of my problem.
28.	It is frustrating, but I feel I might be having a recurrence of a problem I thought I had resolved.
32.	After all I had done to try to change my problem, every now and again it comes back to haunt me.

REFERENCES

- Astroth, D.B., Cross-Poline, G.N., Stach, D.J., Tillis, S.I., and Annan, S.D. (2002). The Transtheoretical Model: An Approach to Behavioral Change. *Journal of Dental Hygiene*, 76(4): 286-295.
- Bassel, N., Schilling, R.F., Ivanoff, A., Chen, D., Hanson, M. and Bidassie, B. (1998). Stages of Change Profiles Among Incarcerated Drug-Using Women. *Addictive Behaviors*, 23(3); 389-394.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Burman, S. (2003). Battered Women: Stages of Change and other Treatment Models that Instigate and Sustain Leaving. *Brief Treatment and Crisis Intervention*, 3:83-98.
- Carey, K. B., Maisto, S. A., Carey, M. P. and Purnine, D.M. (2001). Measuring Readiness-to-Change Substance Misuse Among Psychiatric Outpatients: Reliability and Validity of Self-Report Measures. *Journal of Studies on Alcohol and Drugs*, 62(1): 79-88.
- Clear, T.R., Cole, G.F, and Reisig, M.D. (2009). *American Corrections*. Belmont, CA: Thomson Wadsworth.
- Curry, S., Wagner, E.H. and Gothaus, L.C. (1990). Intrinsic and extrinsic motivation for smoking cessation. *Journal of Consulting and Clinical Psychology* 58, 310-316.
- Daniels, J.W., and Murphy C.M. (1997). Stages and Processes of Change in Batterer's Treatment. *Cognitive and Behavioral Practice*, 4: 123-145.

- Delahanty, J.C., DiClemente, C.C., Havas, S., & Langenberg, P. (2008). Smoking Status and Stages of Change for Dietary Behaviors among WIC Women. *American Journal of Health Behavior*, 32(6), 583-593.
- DiClemente, C.C. (2005). The Challenge of Change. *The Journal of Trauma*, 59:S3-S4.
- _____, (2007). The Transtheoretical Model of Intentional Behaviour Change. *Drugs and Alcohol Today*, 7(1), 28-33.
- DiClemente, C. and Hughes, S. (1990). Stages of change in outpatient alcoholism treatment. *Journal of Substance Abuse*, 2, 217-235.
- DiClemente, C.C. and Prochaska, J.O. (1985). Processes and stages of self-change: Coping and competence in smoking behavior change. *Coping and Substance Use*. S. Shiffman and T.A. Willis. New York: Academic Press.
- _____, (1998). Toward a comprehensive, transtheoretical model of change. In W. Miller and N. Heather (Eds.), *Treating Addictive Behaviors* (2nd Ed.), 3-24. New York, NY: Plenum Press.
- DiClemente, C.C. and Scott, C.W. (1997). Stages of change: Interactions with treatment compliance and involvement. In L.S. Onken, J.D. Blaine and J.J. Boren (Eds.), *Beyond the therapeutic alliance: Keeping the drug-dependent individual in treatment*. (NIDA Research Monograph 165). Washington, DC: U.S. Department of Health and Human Services.
- Duvall, J.L., Oser, C.B. and Leukefeld, Carl G. (2008). Readiness to Change as a Predictor of Drug-Related Behaviors in a Sample of Rural Felony Probationers. *The American Journal of Drug and Alcohol Abuse*, 34: 741-748.

- Edwards, T.A., Houry, D., Kempl, R.S., and Harp, S. (2006). Stages of Change as a Correlate of Mental Health Symptoms in Abused, Low-Income African American Women. *Journal of Clinical Psychology*, 62(12): 1531-1543.
- Freeman, J., Liopsis, P., Schonfeld, C., Sheehan, M., Siskind, V. and Watson B. (2005). Self-reported motivations to change and self-efficacy levels for a group of recidivist drink drivers. *Addictive Behaviors* (30(6): 1230-1235.
- McConaughy E.A., DiClemente, C.C., Prochaska, J.O., Velicer W.F. (1983). Stages of Change in Psychotherapy: Measurement and Sample Profiles. *Psychotherapy: Theory, Research and Practice* 20: 368-375.
- _____, (1989). Stages of Change in Psychotherapy: A Follow-Up Report. *Psychotherapy* 26: 494-503.
- McMurrin, M., Tyler, P., Hogue, T., Cooper, K. Dunseath, W. and McDaid, D. (1998). Measuring Motivation to Change in Offenders. *Psychology, Crime and Law* 4: 43-50.
- Pantalon, Michael V. and Swanson, Arthur J. (2003). Use of the University of Rhode Island Change Assessment to Measure Motivational Readiness to Change in Psychiatric and Dually Diagnosed Individuals. *Psychology of Addictive Behaviors*, 17:2, 91-97.
- Prochaska, J.O. (1979). *Systems of psychotherapy: A transtheoretical analysis*. Homewood, IL: Dorsey.
- Prochaska, J.O. and DiClemente, C.C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research and Practice*, 19(3), 276-288.

- _____, (1983). Stages and process of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, 51, 390-395.
- _____, (1986). Toward a comprehensive model of change. *Treating Addictive Behaviors; Processes of Change*, 3-27.
- _____, (1992). Stages of change in the modification of problem behaviors. *Progress in Behavior Modification*, 28, 183-218.
- Prochaska, J.O., Norcross, J. C. and DiClemente, C.C. (1994). *Changing for Good*. New York, NY: Avon Books.
- Rollnick, S. Heather, N., Gold, R. and Hall W. (1992). Development of a short 'readiness to change' questionnaire for use in brief, opportunistic interventions among excessive drinkers. *British Journal of Addiction*, 87, 743-754.
- Stotts, A.L., DiClemente, C.C., Carbonari, J.P. and Mullen P.D. (1996). Pregnancy smoking cessation: A case of mistaken identity. *Addictive Behaviors*, 21, 459-471.
- Wells-Parker, E., Kenne, D., Spratke, K., and Williams, M. (2000). Self-efficacy and motivation for controlling drinking and drinking/driving: An investigation of changes across a driving under the influence (DUI) intervention program and of recidivism prediction. *Addictive Behaviors*, 25(2), 229-238.
- Williamson, P., Day, Andrew, Howells, K., Bubner, S. and Jauncey S. (2003). Assessing offender readiness to change problems with anger. *Psychology, Crime and Law* 9(4): 295-307.

- Willoughby T. and Perry, G.P. (2002). Working with violent youth: Application of the Transtheoretical Model of Change. *Canadian Journal of Counselling*, 36(4), 312-326.
- Wyse J., Mercer, T., Ashford, B., Buxton K. and Gleeson, N. (1995). Evidence for the validity and utility of the stages of exercise behavior change scale in young adults. *Health Education Research*, 10, 365-377.