

# The Stages of Change: When are Trauma Patients Truly Ready to Change?

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This article summarizes the Stages of Change model, which identifies five stages that people experience as they gradually move away from engaging in harmful behaviors to sustaining healthy behaviors. Patients in different stages of change need different kinds of interventions. The

Stages of Change model enhances brief counseling interventions for trauma patients with substance use problems because counselors can now accurately choose an appropriate intervention strategy. The authors present three case

studies illustrating the three earliest stages of change most commonly encountered in trauma center patients.

**Key Words:** Intervention, Precontemplation, Contemplation, Action, Maintenance.

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## INTRODUCTION

The Stages of Change (SOC) model describes a sequence of five stages that people with harmful behaviors experience as they gradually move toward sustained, healthy changes in their behavior.<sup>1</sup> This model is innovative because clinicians or interventionists now have at their disposal clearly defined clinical strategies for increasing the motivation of patients regardless of which stage they are in. For injured patients with substance use problems, this model enhances the effectiveness of brief counseling interventions in trauma centers.<sup>2</sup> To progress from one stage to the next, patients must make changes in how they think and behave. In this paper, we present case studies of injured patients who were in the three earliest stages of change—the stages most commonly encountered during brief interventions in trauma centers—and we describe the corresponding intervention strategies for each that can help motivate patients to progress to the next stage.

For more than 20 years, James Prochaska and Carlo DiClemente have studied how people intentionally make successful changes in harmful behavior, with or without expert assistance. The SOC Model has been applied to at least 12 unhealthy lifestyle behaviors (e.g. excessive drug or alcohol use, smoking, and unhealthy eating).<sup>3</sup> In each stage, people have different opinions about the advantages and disadvantages (pros and cons) of change. As people progress through the stages of change, a predictable sequence unfolds. At first, people deny or are unaware that a problem exists, but as the negative consequences of their behavior accrue, they become concerned and eventually decide to try to change their behavior. This is followed by experimenting with new behaviors, that are interspersed with relapses, until finally healthy change is sustained.<sup>1,3</sup>

Premature focus on action with patients who are not yet ready to change will only provoke resistance. As clinicians shift from telling patients *how* to change to helping them explore *why* change might be desirable, rapport with their patients improves dramatically.<sup>4</sup>

## THE STAGES OF CHANGE DEFINED

Although there are five stages in the SOC Model, in trauma centers only patients in the first three stages (*precontemplation*, *contemplation*, and *preparation*) are routinely identified by proactive alcohol and drug screening. Patients in the two later stages, *action* (recently making a change) and *maintenance* (sustained change), have moderated their drinking or stopped drinking completely. Therefore, they are less likely to screen positive.

*Precontemplation*—Trauma patients who are in the first stage of change have little awareness of the negative impact of their substance use and have no intention of changing their behavior in the foreseeable future. For patients at this stage, the disadvantages of changing behavior clearly outweigh the advantages. A typical patient's response during intervention might be: "Alcohol isn't a problem for me; if anything, it's a

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**Table 1** Change Model

Stage of Change	How Patients Evaluate the Pros and Cons of Change	Emphasis of Interventionist on Thinking vs. Doing
<b>Precontemplation:</b> Has no intention of changing within the next six months.	Pros < Cons	Thinking
<b>Contemplation:</b> Recognizes a problem and considers change. Is ambivalent and resists suggestions to take immediate action.	Pros ≈ Cons	
<b>Preparation:</b> Decides and commits to change. Only small behavior changes so far (asks for help, declares intent to others).	Pros > Cons	
<b>Action:</b> Formulates and executes plan but new behavior is unfamiliar. At high risk for relapse.	Pros >> Cons	Doing
<b>Maintenance:</b> Adapts to new behavior. At low risk for relapse.		

fun way to deal with my boredom. . .” Trauma patients in precontemplation, who binge drink intermittently, do not see themselves as “having a problem,” because their individual pattern of consumption does not meet the stereotype of the alcoholic who drinks every day or craves a drink.

**Contemplation**—This can be a very uncomfortable stage for patients. Their thought processes simultaneously pull them in two different directions. Patients in this stage of change have become aware of negative consequences associated with their behavior, but still want to preserve and justify their lifestyle. Although change now seems more important, contemplators are not yet committed to taking action. This ambivalence can be clearly heard in their “yes, but” statements and responses: “I suppose I should probably quit drinking, but I’m really not an alcoholic.” Sometimes, an unexpected injury can move patients from precontemplation into the contemplation stage. Even patients in the action and maintenance stages can relapse and return to the contemplation stage.

**Preparation**—This is the decision-making stage. Patients have progressed through the first two stages, have decided to change their behavior (either to quit or cut down), and are ready to formulate an action plan: “I’m going to quit drinking, and I’m going to go back to AA to do it.” In performing brief interventions, we commonly encounter trauma patients whose injuries convince them to “swear off” their behavior. Although they may sound determined to quit drinking, many of them cannot or will not discuss a serious plan for change: “What do you mean ‘how’ am I going to quit drinking? I just told you that I’ve already quit. I don’t need a plan.” These patients are most likely not yet in the preparation stage. Patients who are truly in preparation can mentally anticipate, and at least formulate, contingency plans to deal with friends and situations that might present obstacles to change.

**Action and Maintenance**—The final two stages of change are self-defining. Patients are now committed to changing their behavior and are following a personal action plan to sustain their new behavior. In the action stage, new behavior is sustained for less than six months; in the maintenance stage, it is sustained for more than 6 months.<sup>1,3</sup>

Behavior change programs used to offer action-oriented interventions to almost all at risk individuals, regardless of their motivational levels. For example, programs recommended that they go immediately to specialized treatment or Alcoholics Anonymous. However, this consistently resulted in extraordinarily high no-show or drop-out rates by individuals in the precontemplation or contemplation stages. Instead, they needed an intervention better matched to their readiness levels.<sup>5</sup> Programs should first help precontemplators and contemplators recognize the consequences of their behavior and resolve their ambivalence about taking action. To offer action-based solutions to all at risk individuals regardless of their motivation to change is inappropriate. Interventions should be matched to each individual’s readiness level.<sup>5</sup>

### EMPIRICAL SUPPORT FOR THE STAGE OF CHANGE MODEL

There is strong empirical evidence that the SOC Model can predict changes in how patients evaluate the pros and cons of change as they progress, or fail to progress, from earlier to later stages. A crossover occurs in *contemplation* as the pros of change catch up to the cons and then begin to outweigh the cons in *preparation* (see Table 1). This crossover effect has been consistently identified across the 12 different behaviors previously identified.<sup>4,6</sup> Among smokers seeking expert help for quitting, those who are in the later stages of change are more likely to quit smoking on their own.<sup>7</sup> Similarly, patients with alcohol-use disorders who are in the later stages of change respond better to action-oriented addiction treatment than do those in the earlier stages of change.<sup>1</sup> The stages of change accurately predict participation and retention in addiction treatment.<sup>8</sup> In the earlier stages, patients make *greater changes in their thinking*; those in the later stages make *greater use of changes in their behavior*.<sup>6,7</sup> For example, a patient progresses from *precontemplation* to *contemplation* by thinking: “*Maybe I was injured because I was drunk and I should consider changing,*” and from *preparation* to *action* by removing beer from the house, staying out of bars, or staying away from friends who drink.

Patients do not necessarily move through the stages of change in a linear sequence. They often move backward, revisiting the *precontemplation*, *contemplation*, or *preparation* stages.<sup>1,7</sup> Although relapse is not a stage in the SOC Model, per se, it commonly occurs among those with problem lifestyle behaviors such as substance use disorder.

**Table 2** Motivational Strategies by Stage of Change

Client's Stage of Change	Appropriate Motivational Strategies for the Clinician
Precontemplation = Not now	Build rapport (Elicit client perception of problem) Provide feedback
Contemplation = Maybe	Weigh pros and cons of alcohol use and behavior change Identify personal values and goals Assess importance and confidence Summarize patient's statements that emphasize change
Preparation = Probably soon	Reinforce commitment to change Clarify patient goals and action plan With permission, offer advice Identify barriers to change Identify social support for change
Action = Now	Reinforce importance of change Define change as process Acknowledge challenge of making change Identify high risk contexts Identify coping strategies and support mechanisms
Maintenance = Forever	Support lifestyle changes Identify non-drinking activities Affirm client's success Define relapse as part of change process Identify plan of action in the event of relapse or slip Identify long term goals
Relapse	Help client reenter cycle of change Define relapse as part of change process and opportunity to learn what works and what doesn't work Refine change plan Encourage maintenance of supportive contacts

Adapted from Treatment Improvement Protocol No. 35.<sup>9</sup>

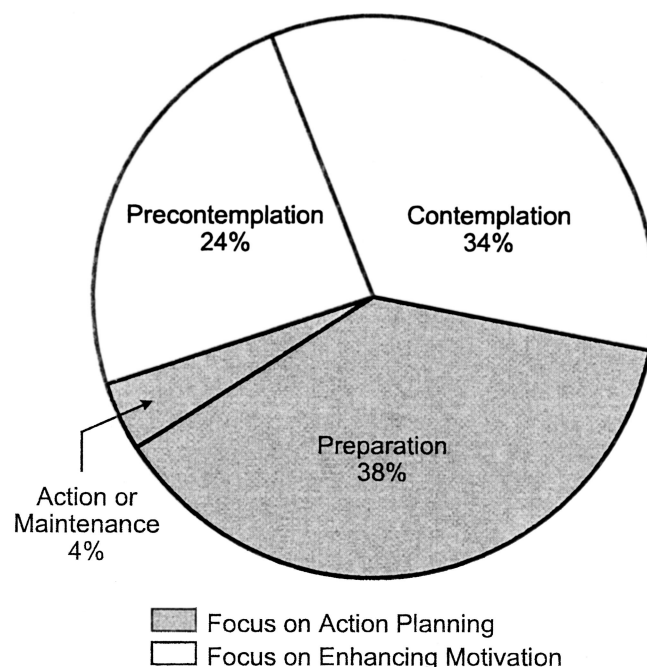
ders, diabetes self-management, or adherence to antihypertensive medication. A relapse is an obvious sign that something in the change plan needs an adjustment. Like the other stages of change, it requires the appropriate motivational counseling strategy<sup>9</sup> to help patients capitalize on the lessons learned from relapse so they can eventually return to the *action* stage with an improved plan (see Table 2).<sup>10</sup>

### ASSESSING READINESS TO CHANGE

How many trauma patients are truly in the later stages of change—*preparation, action, or maintenance*? Clinicians occasionally have difficulty assessing a patient's readiness to change—particularly in distinguishing between true *preparation* and *pseudo-preparation*. Studies measuring readiness to change in various medical populations have determined that only about 20% of all patients were in the later stages of change.<sup>11</sup> In contrast, 42% of 346 patients receiving brief interventions in a Level I trauma center were (Fig. 1)—a percentage over twice that found in other medical settings. Although adolescent substance users in other medical settings are notoriously reluctant to change, 51% of 254 injured adolescents sampled in an emergency department in Providence, RI, were found to be in the later stages of change.<sup>12</sup>

Were these trauma patients truly preparing for lasting change, or had their recent injuries merely provoked a transient swearing-off response? Two studies of hospital-

ized trauma patients have determined that trauma patients reduce their drinking for up to six months—even without



Source: From a 2003 convenience sample of 346 patients admitted to Harborview Medical Center, Seattle, Washington (a level 1 trauma center).

**Fig. 1.** Sequence of clinical tasks for the inpatient intervention protocol.

a brief intervention.<sup>13,14</sup> However, brief interventions can prolong this reduction and reduce injury recurrence for as much as three years.<sup>12</sup> So, it is best to regard most trauma patients who say they are ready to change, as truly being ready. The exceptions to this rule are those patients already mentioned, who do not formulate a plan to change their behavior—a central task in the *preparation* stage. These patients are actually in *contemplation*; they need more time to reflect on the *why* of change, not the *how*.

## CASE STUDIES ACROSS THREE STAGES

The following three case studies are of trauma patients in the *precontemplation*, *contemplation*, and *preparation* stages. Each describes the patient's unique view of personal substance use and the stage-matched clinical tasks for the brief interventionist. The identities and circumstances of these patients have been changed to protect their privacy.

### Case Study 1: Precontemplation

Patients in the precontemplation stage have no intention of changing their behavior in the immediate future. Most do not perceive a link between their alcohol consumption and negative experiences. Acknowledgment of the link comes only when they progress into the later stages of change. To advance to the *contemplation* stage, they must begin to think differently.

Jason, a 19-year-old college student was admitted to the trauma center for blunt trauma sustained from falling off a balcony railing during a fraternity party. During the intervention, he stated defensively that he only drinks on weekends, can quit anytime he wants, and believes that popular concerns about college binge drinking are overstated. He resisted action-oriented advice to quit drinking or to adopt low-risk drinking guidelines by becoming argumentative or by changing the topic of discussion. *Why should he accept advice that he perceives to be an unnecessary solution to a problem he believes he does not have?*

To progress into *contemplation*, Jason had to begin thinking of his drinking not merely as a pleasurable activity, but also as a source of some of his problems. This introduced doubt about the appropriateness of his behavior and he became concerned about his safety in future situations. A key clinical task in the brief intervention for Jason was to inform him of his blood alcohol concentration (BAC) upon admission (190 mg/dL) and to suggest that had he been sober, he might have chosen not to sit on the balcony railing. The interventionist also helped Jason explore other times when he had been injured as a result of drinking. This planted doubt in Jason's mind about his drinking pattern. When an intervention is performed with respect and compassion, patients like Jason will begin to view heavy drinking as a source of pain and suffering, rather than as a source of pleasure. Although patients may not quit drinking immediately, this shift in thinking is a

successful outcome for a brief intervention with a precontemplator.

### Case Study 2: Contemplation

Patients in the *contemplation* stage often find themselves in an uncomfortable state. They feel a need to consider change, but at the same time resist taking action. Because contemplators already accept that they incur harm from their substance use, they worry about their future. Although they complain about their problems, they do not take action. Some contemplators may have relapsed.

Janelle is a 38-year-old woman who sustained multiple injuries from a one-car crash while driving intoxicated—upon admission, her BAC was 230 mg/dL. Because she was intubated at the scene, she was not charged with drunk driving. In the trauma center, she was remorseful about her drinking and grateful for not having hurt anyone else. In another incident six years before, she had been charged with drunk driving. At that time, to avoid losing her driver's license, she had complied with mandated substance-abuse treatment and was in the *precontemplation* stage of change. When her treatment ended, however, she returned to drinking. Unlike Jason, she needed no help from the interventionist to recognize the link between drinking and suffering. She acknowledged that her injury was a direct result of her drinking, but was torn between wanting to quit drinking in the face of her recent disaster and questioning whether it was really necessary to give up drinking altogether. *Couldn't she achieve her goals by just cutting down?* Janelle did not make a personal commitment to change, and because she was not charged with drunk driving in this instance, she was not faced with mandated treatment, which would demand complete abstinence.

As with Jason, attempts to persuade Janelle to choose abstinence as a goal would only have exacerbated her resistance. To progress into *preparation*, Janelle needed help in tipping her perceived balance of pros and cons in favor of change, in setting an achievable drinking goal (to cut down or quit), and in formulating a plan to achieve her goal. The interventionist helped Janelle to explore her perceptions about her drinking behavior and asked her about her concerns for the future if she chose not to change. To elicit Janelle's input on potential drinking goals, the interventionist asked a hypothetical question: *"If you were to decide to make a change in your drinking, do you think you'd prefer to quit completely, or do you want to try cutting down to some personal limit and try to stay under that limit?"* This strategy increased Janelle's discomfort with the status quo (still drinking) and made change options seem more attractive and obtainable. Although a successful brief intervention with contemplators might not result in immediate change, it will bring patients closer to change because doubt about the status quo has been planted in their minds.

### Case Study 3: Preparation

Patients in the *preparation* stage already know why they want to change and are ready to formulate a plan. They must choose between cutting down and quitting. Planning *how* to change means choosing the appropriate actions to reach a specific goal.

Brian was a 46-year-old, self-employed consultant who had sustained lower extremity and rib fractures. He had driven his car into a parked car one night during a downpour on a poorly lit street. Brian's BAC was 165 mg/dL upon admission to the trauma center; also, his urine toxicology screen was positive for marijuana and cocaine. On the night of the crash, he had been at an annual business party and was too embarrassed to call a cab to get home. He remembered consenting to a blood toxicology test requested by the police. At the trauma center, he reported drinking several days per week, but seldom as heavily as on the night he was injured. Brian further stated that he smoked marijuana weekly and used cocaine periodically. In addition to drinking at the party, he had also used cocaine. During his brief intervention on the orthopedic ward, he revealed that he had experienced several "near misses," but had never been charged with drunk driving until now. He acknowledged that his drinking was frequently an issue in arguments with his fiancée, that he spent too much money on alcohol, and that he would like himself better if he could change his behavior. Even before the crash, Brian had seriously considered getting help for his drinking and had already decided to change his lifestyle before the interventionist entered the treatment room.

To progress into *action*, Brian had to first choose a specific goal, formulate an action plan, and execute his plan. The key clinical task in this brief intervention was to help Brian clarify his goals and to help him formulate an achievable action plan. While exploring Brian's goals, the interventionist learned that before the crash, Brian had wanted to quit drinking, but wanted to keep using marijuana. The interventionist helped him explore how the future might unfold if he were to continue using an illegal substance, given his current legal problems. Brian decided to choose abstinence from all substances as his personal goal. Faced with a drunk-driving charge and mandatory treatment to retain his driver's license, Brian knew it could take months before the court would take action. He faced the choice of going into treatment immediately or waiting for the court to send him to treatment months later. After the interventionist outlined the anticipated recovery period, Brian decided it would be easier to participate in outpatient treatment during the recovery process, rather than to begin treatment after he had returned to a busy work schedule. He also knew that the court might look upon him more favorably if he were already sober and enrolled in a treatment program when his case came up.

### SUMMARY

The *action* and *maintenance* stages are seldom encountered in trauma centers because brief interventionists usually screen for *active* alcohol or drug problems. By definition, the *action* and *maintenance* stages comprise people who have already quit drinking (or who have cut down greatly). Interventionists should offer praise and support to these patients to lessen their chances of relapse. As mentioned earlier, relapse is as common to the change process as are the stages themselves. Fortunately, most people who relapse return to the *contemplation*, *preparation*, or *action* stages—not to the *precontemplation* stage.<sup>1</sup> This is encouraging because it suggests that not all progress is lost when patients relapse.

Efforts—however well-intentioned—to persuade patients who are in the early stages of change to take immediate action only put patients on the defensive and cause negative reactions. Patients may "misplace" telephone numbers or "forget" treatment appointments, or even revert to denying the problem exists. This gross mismatch of counseling strategy with low readiness is counterproductive. For years, clinicians have known this. But until the arrival of the Stages of Change model, they were unhappily forced into an all-or-nothing posture with their patients—either trying to force their unready patients into treatment or avoiding the topic altogether. The model now reminds clinicians that to move as quickly as possible toward healthy behavior change with less-ready patients, they must first slow down and help them explore the *why* of changing before counseling them on the *how*.

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