

## STEPS TOWARDS CHANGE DESIGNING PERSONALIZED MESSAGES BASED ON THE TRANSTHEORETICAL MODEL

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**Abstract:** *The Prochaska and DiClemente model, also known as the Transtheoretical Model (TTM), provides a comprehensive framework for understanding and facilitating behavior change. In this article, we explore the stages of change in the TTM and examine how they can be effectively applied to achieve lasting transformations. By analyzing the principles and strategies associated with each stage, individuals and professionals can gain insights into the process of change and develop tailored interventions that promote real, sustainable changes in various domains of life. In this article, we offer examples of how to communicate to individuals in each stage, depending on the area that change is expected in (e.g. climate change, addictions, positive new behaviors) and thus lay the framework for a more effective communication for change.*

**Keywords:** *Transtheoretical Model; stages of change; behavior change; sustainable transformation.*

### Introduction

The Prochaska and DiClemente model, or the Transtheoretical Model, developed in the late 1980s, revolutionized the understanding of behavior change by introducing the concept of stages. In this article, we describe the stages of change in this model and explore their application to achieve real changes. By applying the principles of the Transtheoretical Model, individuals, researchers, and practitioners can develop effective strategies to facilitate behavior change across diverse contexts.

Individuals and organizations cannot change overnight, and that is the main idea behind the Transtheoretical Model, developed by researchers Prochaska and DiClemente (1983). The model states that, in order to be successful, a message or a campaign has to take into account the fact that there are many stages an individual goes through, before

actually changing. Initially, four stages were proposed by the two authors, in a 1982 article about smoking: (1) precontemplation; (2) contemplation; (3) action and (4) maintenance, and later on a fifth stage was added, between contemplation and action stages, and called *preparation* (Grimley, Prochaska, Velicer, Blais & DiClemente, 1994). Now, the model looks like this: (1) precontemplation; (2) contemplation; (3) preparation; (4) action and (5) maintenance. Sometimes, especially in health-related programs, a 6th stage might appear, called (6) termination or relapse, depending on the ending of the change process. In certain cases, *termination* means that the change is complete and the individual has successfully been through all the steps, or *relapse* when the individual slips from the process of change and has to go over through some of the steps.

### 1. Precontemplation Stage:

In the precontemplation stage, individuals are not planning to change their behavior in the near future. In fact, they are not even contemplating change (hence the name - precontemplation), because they do not see their behavior as being problematic. In this stage, individuals are usually uninformed about their behaviors and the long-term consequences that might occur, lack the belief that they could change anything, avoid thinking about the problem and are generally in defense about the social pressures for change. In an article about smoking cessation, researchers Prochaska, Velicer, Guadagnoli, Rossi & DiClemente (1991), found that two thirds of the 200 smokers investigated in the study remained in the precontemplation stage even two years later, thus proving that this stage is one of the most stable and difficult to overcome. A period of six months is usually used for this stage, as it is considered that individuals don't go further than six months when considering changes.

#### Characteristics and Mindset:

- Lack of awareness or denial of the need for change.
- Minimal intention to take action.
- May exhibit defensiveness when confronted with the need for change.
- May rationalize or justify their behavior.

#### Advantages:

- Provides a sense of stability and familiarity with the current behavior.

- May serve as a protective mechanism against immediate distress or discomfort.

#### Disadvantages:

- Lack of readiness for change can hinder progress.
- May lead to missed opportunities for personal growth and improvement.
- Maintaining unhealthy behaviors can lead to negative consequences in the long run.

## 2. Contemplation Stage:

Contemplation is the second stage in the model, where individuals are aware that a problem exists and have serious intentions to change that within the next six months. This stage can also be very static, as individuals have not committed to make any change and thus can be stuck in this loop for a very long time. In the previously mentioned study about smokers, the authors (DiClemente & Prochaska, 1982; Prochaska & Di Clemente, 1984) found that individuals remained in this stage for almost 2 years, without making any significant action to change that. In this stage, people know their direction and where they want to get with the change, but are not ready yet to implement it.

#### Characteristics and Mindset:

- Ambivalence towards change.
- Recognizes the need for change but feels uncertain about taking action.
- Weighs the benefits and drawbacks of change.
- May seek information and explore different options.

#### Advantages:

- Increasing awareness of the need for change.
- Openness to gathering information and considering alternatives.
- The contemplation stage can serve as a bridge between precontemplation and preparation stages.

#### Disadvantages:

- Tendency to remain in a state of indecisiveness or inaction.
- May become overwhelmed by the perceived challenges and uncertainties of change.

- Procrastination or delay in taking the necessary steps towards change.

### 3. Preparation Stage:

Preparation is the stage where individuals *prepare* to take action in the very near future (usually within the next month), they have designed an action plan and have tried several small behavioral changes (e.g. reducing the alcohol quantity, in case of alcohol consumption). This stage is more of a transitional one, as individuals will make progress in the foreseeable future (within the next month).

#### Characteristics and Mindset:

- Intention to take action in the near future.
- May set specific goals and establish a timeline.
- Starts seeking resources and support to facilitate change.
- May experiment with small changes or preliminary actions.

#### Advantages:

- Increased commitment and motivation to change.
- Active preparation and planning for change.
- Engagement in actions that support the desired transformation.

#### Disadvantages:

- The preparation stage can be prolonged, leading to a delay in actual behavior change.
- The risk of becoming stuck in the planning phase without progressing to the action stage.
- Unrealistic goal-setting or inadequate preparation, which can undermine successful change.

### 4. Action Stage:

Action is the fourth stage in the model and is represented by clear behavioral changes. For example, with smokers, they are not considered to be in the action stage if they only reduced their number of cigarettes per day. Instead, they must have quit smoking within the last six months. Of all the stages in the model, this one is the least stable, because there are a lot of behavioral changes to maintain and the risk of relapses are often at the highest levels.

#### Characteristics and Mindset:

- Visible behavioral changes in pursuit of the desired goal.

- Requires a conscious effort to overcome obstacles and sustain new behaviors.
- May experience both successes and setbacks along the way.
- Active engagement in strategies and techniques to support behavior change.

#### Advantages:

- Concrete progress towards the desired change.
- Enhanced confidence and self-efficacy through successful modification of behavior.
- Opportunities for learning and growth through experiences and feedback.

#### Disadvantages:

- The action stage can be demanding, requiring sustained effort and willpower.
- The risk of relapse or reverting to old behaviors due to challenges or triggers.
- The need for ongoing support and self-motivation to maintain new behaviors.

#### 5. Maintenance Stage:

Maintenance is the fifth stage and ranges from a period of six months when the action phase has been reached, until the problematic behavior is terminated. In this stage, individuals don't just resist temptation and refrain from engaging in the problematic behaviors, instead they use a vast array of tools (e.g. behavioral skills) needed to avoid relapses.

#### Characteristics and Mindset:

- Consistent practice of new behaviors or habits.
- Integration of the desired change into daily life.
- Developing strategies to cope with challenges and prevent relapse.
- Building resilience and self-efficacy in maintaining the change.

#### Advantages:

- Consolidation of the desired behavior change.
- Increased self-confidence and self-control.

- Reduced risk of relapse and long-term adherence to the new behaviors.

Disadvantages:

- Complacency or a false sense of security, leading to a decline in vigilance.
- The risk of environmental or internal triggers that may challenge the maintenance of new behaviors.
- The need for ongoing effort and commitment to sustain the change in the long run.

6. Termination Stage:

After these five stages which belong to the acquisition of behaviors, there can also be a final stage, either in the form of *termination* or *relapse*. The termination stage is a period of time when the problematic behavior has been extinct. This stage is characterized by two criteria: (1) there is no temptation to engage in a previous problematic behavior and (2) the individual is 100% confident that he/she will not engage in the problematic behavior again. Regarding smoking, research (Prochaska & DiClemente, 1984) shows that the highest levels of confidence appear after 1 year and a half of abstinence, yet temptation appears only after 3-4 years of abstinence, making things tricky for former smokers to resist. Even after one year of continuous abstinence there is still a third of individuals who will return to smoking, and this percentage drops to 7% after 5 years of continuous abstinence (USDHHS, 1990).

Characteristics and Mindset:

- Complete internalization of the desired change.
- Absence of temptation or desire to return to the previous behavior.
- High self-efficacy and confidence in maintaining the change.

Advantages:

- Successful achievement of sustainable behavior change.
- Greater overall well-being and improved quality of life.
- The transformed behavior becomes automatic and requires minimal effort.

Disadvantages:

- The termination stage is not always applicable to all behaviors or individuals.
- Overconfidence in maintaining the change, which may lead to complacency.
- The potential for unexpected life events or circumstances that may challenge the maintenance of the change.

The progress through these stages is not always linear, but rather cyclical, and individuals who relapse don't always go back to the first stage.

The Transtheoretical model offers a valuable framework for understanding the process of behavior change and achieving sustainable transformations. By recognizing the distinct stages individuals pass through during their change journey, interventions and strategies can be tailored to meet their unique needs and circumstances. However, it is important to consider the challenges and limitations associated with each stage and implement approaches that promote long-term maintenance and prevent relapse. With a comprehensive understanding of the stages of change, individuals, professionals, and policymakers can foster real changes in various domains of life and contribute to the betterment of society as a whole.

### **Applying the Model**

The Transtheoretical Model (TTM), can be applied to various areas where behavior change is desired. Some of the areas where this model has been used include:

#### **1. Health and Wellness:**

The TTM has been extensively used in promoting health behavior changes such as smoking cessation (Prochaska, Velicer, Guadagnoli, Rossi & DiClemente, 1991), weight management (de Freitas et al., 2020), physical activity (Marcus, Rossi, Selby & Niaura, 1992; Han, Pettee & Kohl, 2017), sunscreen use (Rossi, 1992), medication adherence (Imeri, Toth, Arnold & Barnard, 2022), dietary modifications (Rossi, Rossi, Velicer & Prochaska, 1990), nursing care (Lee, Park & Min, 2015), condom and contraceptive use (Grimley, Riley, Bellis & Prochaska, 1992), medical screenings (Rakowski, Dube, Marcus, Prochaska & Velicer, 1992) or diabetes control (Andrés, A., Gómez, J., & Saldana, C. (2008). It provides a framework for understanding individuals' readiness to change and tailoring interventions accordingly.

## 2. Addiction and Substance Abuse:

The model is highly relevant in the context of addiction (Sutton, 2001) and substance abuse, such as alcohol abuse (Prochaska et al., 2004), drug abuse (Evers et al., 2012). It helps professionals assess an individual's stage of change, develop personalized treatment plans, and address relapse prevention strategies.

## 3. Mental Health:

The TTM can be applied to promote behavior change in mental health (Lach, Everard, Highstein & Brownson, 2004) domains such as stress management (Evers et al., 2006), coping skills, adherence to treatment plans Guillot, Kilpatrick, Hebert, Hollander, 2004), and seeking help for mental health concerns such as depression (Levit, Cismaru & Zederayko, 2015). It offers insights into individuals' readiness to engage in therapeutic interventions and supports treatment planning.

## 4. Education and Learning:

In educational settings, the TTM can be used to understand and facilitate behavior change related to study habits (Grant & Franklin, 2007), time management (O'Brien, 2000), goal setting, and academic performance (Moreira et al., 2020). It helps educators develop interventions that cater to students' specific needs and readiness for change.

## 5. Workplace and Organizational Change:

The TTM can be employed in facilitating behavior change within organizations (Prochaska, 2000), such as promoting a healthy work-life balance (Geithner, Albert & Vincent, 2007), enhancing productivity (Finnegan et al., 2018), fostering teamwork, and implementing organizational changes. It assists in identifying employees' readiness for change and designing interventions accordingly.

## 6. Environmental Sustainability:

Behavior change plays a crucial role in promoting sustainable practices and mitigating environmental challenges. The TTM can be utilized to encourage individuals to adopt environmentally friendly behaviors (Saulick, Bekaroo, Bokhoree & Beeharry, 2023), such as recycling, energy conservation, and sustainable transportation choices.

## 7. Social and Community Initiatives:

The TTM can be applied in community-based interventions aimed at addressing various social issues. It can guide programs targeting areas such as smoking prevention, violence reduction (Anderson, 2003),



community engagement (Finnegan et al., 2018), and promoting social responsibility (Simpkins, 2015).

### **Advertising and Campaign Messages for Change**

This article is not an endeavor to list the clinical and behavioral strategies to be applied in the change process. Instead, it is a short guide on how to communicate with individuals (or companies) regarding change, for each of the five stages and in various fields (e.g. to achieve positive and desirable behaviors or to quit negative, undesirable ones). Next, we present some messages that can be used to communicate for change, for each of the five stages in the Transtheoretical model and depending on the topic. We have chosen 13 areas of communication for change that we considered to be most relevant and presented them in their alphabetical order. We acknowledge that there could be other important areas as well, and we will consider them in future research.

#### **I. Messages for promoting alcohol cessation**

##### **1. Precontemplation stage (Not yet considering change):**

Message: "Explore Life's Possibilities Without Alcohol!"

- "Take a moment to reflect on your relationship with alcohol. Even if you're not ready to quit yet, it's important to consider the impact it may have on your health and well-being."
- "Explore the reasons behind your drinking habits. Understanding the potential risks and benefits can motivate you to take the next step when you're ready."

In this stage, individuals may not recognize or acknowledge any negative consequences associated with their drinking behavior. Focus on raising awareness about the benefits of a sober lifestyle and the potential for positive experiences, such as increased health, clearer thinking, and more meaningful connections with others.

##### **2. Contemplation stage (Considering change but undecided):**

Message: "Question Your Relationship with Alcohol – It's Your Choice!"

- "You're considering making a change, and that's a significant step. Take the time to weigh the pros and cons of reducing or quitting alcohol. Visualize the positive outcomes and envision a healthier, more fulfilling life."

- "Talk to others who have successfully reduced or quit drinking. Learn from their experiences and gather insights that can help you make an informed decision."

Individuals in the contemplation stage are aware of the potential negative effects of drinking but may still feel uncertain about change. Encourage self-reflection and critical thinking by presenting thought-provoking questions about the impact of alcohol on various aspects of their lives. Highlight the importance of personal agency and emphasize that the decision to change ultimately lies with them.

### 3. Preparation stage (Preparing for change):

Message: "Empower Yourself: Take the First Step to a Healthier You!"

- "Congratulations on deciding to take action! Set a specific date to start your alcohol cessation journey. Use this time to gather resources, build a support network, and develop strategies to cope with potential challenges."
- "Identify your triggers and develop alternative activities or coping mechanisms to replace alcohol. Surround yourself with supportive friends or family members who can help you stay committed to your goals."

Individuals in the preparation stage are ready to take action and make a change. Provide practical information and resources to support their decision, such as tips for finding alternative activities, seeking social support, and setting achievable goals. Emphasize that they are not alone in their journey and that assistance is available.

### 4. Action stage (Initiating change):

Message: "Embrace the Freedom of a Drink-Free Lifestyle!"

- "You're actively working towards reducing or quitting alcohol. Stay focused on your motivations and celebrate each milestone along the way."
- "Seek professional assistance if needed. Consider joining support groups or engaging in therapy to enhance your chances of success. Remember, you're not alone in this journey."

Individuals in the action stage have already taken significant steps to modify their drinking behavior. Focus on reinforcing their commitment and motivation by highlighting the positive changes they are experiencing. Share success stories, tips for overcoming challenges, and strategies for maintaining a healthy and fulfilling life without alcohol.

### 5. Maintenance stage (Sustaining change):

Message: "Celebrate Your Progress: A Lifetime of Health and Happiness Awaits!"

- "You've successfully reduced or quit alcohol, but the journey doesn't end here. Stay vigilant and continue practicing healthy habits. Remind yourself of the progress you've made and the reasons why you chose to change."
- "Share your success story with others who may be struggling with alcohol. Your experience can inspire and motivate them to pursue their own journey of change."

Individuals in the maintenance stage have successfully modified their behavior and are striving to maintain long-term change. Reinforce their achievements and remind them of the ongoing benefits of a sober lifestyle. Provide encouragement, ongoing support resources, and reminders of the progress they have made to help them stay motivated and committed.

## II. Messages for stopping bullying

### 1. Precontemplation:

- "Bullying affects more than just the victim. Take a moment to reflect on the impact your actions may have on others. Together, we can build a kinder and more inclusive community."
- "Reflect on the impact of bullying on others and yourself. Even if you haven't considered changing your behavior yet, it's important to acknowledge the harm it causes and the potential for personal growth."
- "Learn about the consequences of bullying for both the victim and the perpetrator. Understanding the negative effects can help you develop empathy and perspective."

### 2. Contemplation:

- "Are you tired of seeing bullying around you? It's time to consider taking a stand. Reflect on the power of empathy and compassion. Join us in creating a safe and respectful environment for everyone."
- "You're considering making a change in your behavior towards bullying. Take the time to evaluate your actions and the reasons

behind them. Imagine a world without bullying and envision the positive impact you can have."

- "Engage in open conversations with friends, family, or professionals who can provide guidance and support. Discuss your concerns, doubts, and aspirations related to stopping bullying."

### 3. Preparation:

- "You've recognized the need for change. Equip yourself with knowledge and strategies to prevent bullying. Start by learning effective communication skills and conflict resolution techniques. Together, we can stop bullying in its tracks."
- "Congratulations on deciding to take action! Set a clear intention to stop bullying and make a commitment to change. Identify the specific behaviors you want to address and develop strategies to handle challenging situations."
- "Educate yourself about alternative ways to communicate and resolve conflicts. Practice empathy, active listening, and assertiveness skills. These tools can help you build healthier relationships and prevent bullying."

### 4. Action:

- "Take action against bullying today! Speak up when you witness it, support victims, and encourage empathy. Together, we can create a culture where bullying is not tolerated. Your voice matters!"
- "You're actively working towards stopping bullying. Practice self-awareness and monitor your behavior closely. Recognize when you're tempted to engage in bullying and consciously choose alternative responses."
- "Seek guidance from mentors, counselors, or anti-bullying programs. They can provide valuable support, teach conflict resolution skills, and help you navigate challenging social dynamics."

### 5. Maintenance:

- "Congratulations on making a difference! Staying vigilant is key to maintaining positive change. Keep educating and

inspiring others to stand up against bullying. Together, we can build a lasting legacy of kindness and respect."

- "Congratulations on making progress in stopping bullying! Remember, this is an ongoing commitment. Stay vigilant and continue practicing empathy, respect, and kindness in all your interactions."
- "Lead by example and encourage others to join you in promoting a bully-free environment. Spread awareness about the impacts of bullying and advocate for positive change in your community."

### **III. Messages for promoting child adoption**

#### 1. Precontemplation Stage (Not considering adoption):

- "Discover the joy of parenthood and make a lasting impact on a child's life through adoption."
- "Learn about the rewards of adoption and how it can bring love and fulfillment to your family."
- "Explore the possibilities of expanding your family through adoption and provide a loving home for a child in need."

#### 2. Contemplation Stage (Considering adoption):

- "Imagine the incredible bond you can create through adoption. Take the first step towards building a loving family."
- "Reflect on the joy of giving a child a forever home. Consider adoption as a path to parenthood."
- "Explore the world of adoption and gather information to make an informed decision. Begin your journey towards becoming an adoptive parent."

#### 3. Preparation Stage (Preparing for adoption):

- "Get ready to welcome a child into your home. Learn about the adoption process and prepare yourself for the journey ahead."
- "Take practical steps towards adoption. Attend informational sessions, connect with adoption agencies, and start laying the groundwork for a loving family."
- "Prepare your heart and home for a child. Create a safe and nurturing environment that will give an adopted child the love they deserve."

#### 4. Action Stage (Actively pursuing adoption):

- "Take the leap and start the adoption process today. Begin the fulfilling journey of becoming a parent through adoption."
- "Navigate the adoption process with confidence. Our experienced team is here to support you every step of the way."
- "Start connecting with adoption professionals, attend parenting workshops, and complete the necessary paperwork. Your dream of adopting a child is within reach."

#### 5. Maintenance Stage (Successfully adopted):

- "Celebrate the joy of adoption and the incredible bond you've formed with your child. Embrace the adventure of parenthood."
- "Share your adoption story and inspire others to consider adoption. Help create a world where every child has a loving home."
- "Continue to nurture your family and provide a loving environment for your adopted child to thrive. Be a role model for other families considering adoption."

### **IV. Messages for promoting climate change awareness**

#### 1. Precontemplation Stage (Unawareness):

- "Discover the impact of climate change on our planet and learn how small changes can make a big difference."
- "Uncover the hidden consequences of our actions on the environment and join the conversation on climate change."

#### 2. Contemplation Stage (Awareness):

- "Recognize the urgency of climate change and explore how your choices can contribute to a sustainable future."
- "Consider the environmental challenges we face and envision a greener tomorrow. Together, we can create change."

#### 3. Preparation Stage (Motivation):

- "Take the first step towards a sustainable lifestyle. Join us in adopting eco-friendly habits for a brighter future."
- "Get ready to make a positive impact. Learn practical ways to reduce your carbon footprint and inspire others to do the same."

#### 4. Action Stage (Implementation):

- "Become an environmental champion by incorporating renewable energy, recycling, and conservation practices into your daily life."
- "Lead the way in combating climate change through tangible actions. Together, we can build a greener and cleaner world."

#### 5. Maintenance Stage (Sustainability):

- "Celebrate your commitment to a sustainable lifestyle. Share your success stories and inspire others to follow in your footsteps."
- "Keep the momentum going! Stay dedicated to sustainable choices and encourage others to join the movement for a thriving planet."

### **V. Messages for promoting daily exercising**

#### 1. Precontemplation Stage (Not considering exercise):

- "Discover the benefits of daily exercise – a step towards a healthier you!"
- "Unleash your potential with daily exercise – it's never too late to start!"
- "Explore the joy of an active lifestyle – exercise your way to a happier, fitter you!"

#### 2. Contemplation Stage (Considering exercise):

- "Imagine a healthier future – take the first step towards daily exercise today!"
- "Unlock your motivation – daily exercise can transform your life!"
- "Ponder the possibilities – commit to daily exercise and embrace a better you!"

#### 3. Preparation Stage (Preparing for exercise):

- "Gear up for success – get ready to incorporate daily exercise into your routine!"
- "Plan your fitness journey – start small and work your way up to daily exercise!"
- "Equip yourself for a healthier lifestyle – set achievable goals for daily exercise!"

#### 4. Action Stage (Engaging in exercise):

- "Embrace the power of daily exercise – feel the energy and vitality it brings!"
- "Make every day count – commit to daily exercise and see amazing results!"
- "Celebrate your progress – you're on track with daily exercise, keep pushing!"

#### 5. Maintenance Stage (Sustaining exercise):

- "Daily exercise is your way of life – continue to prioritize your health and well-being!"
- "You're an exercise champion – maintain your momentum with daily exercise!"
- "Stay motivated, stay active – daily exercise ensures a lifetime of wellness!"

### **VI. Messages for promoting a healthier lifestyle**

#### 1. Precontemplation Stage (Not yet considering change):

- "Discover the power of a healthier lifestyle and its positive impact on your well-being."
- "Uncover the benefits of embracing a healthier life and take control of your future."
- "Learn how small changes can lead to a happier, healthier you."

#### 2. Contemplation Stage (Considering change):

- "Imagine a healthier life: one step closer to achieving your goals."
- "Ponder the possibilities of a healthier lifestyle and the positive transformations it can bring."
- "Reflect on the potential of a healthier you and the improved quality of life that awaits."

#### 3. Preparation Stage (Planning for change):

- "Get ready to embark on a journey towards a healthier lifestyle. Start planning today!"
- "Equip yourself with the tools and knowledge needed to make lasting changes for a healthier you."



- "Preparation is key: lay the foundation for success on your path to a healthier tomorrow."

#### 4. Action Stage (Taking steps towards change):

- "Take charge of your health today! Implement small changes and witness big results."
- "It's time to make a move! Embrace healthier habits and experience a positive transformation."
- "Commit to action! Start exercising, eating well, and nurturing yourself for a healthier, happier life."

#### 5. Maintenance Stage (Sustaining the change):

- "Congratulations on your progress! Maintain your healthier lifestyle and enjoy the long-term benefits."
- "You've come a long way! Keep up the good work and enjoy the rewards of a sustainable, healthy lifestyle."
- "Stay motivated, stay healthy! Embrace the joy of maintaining your positive lifestyle changes."

### **VII. Messages for promoting mental health awareness**

#### Stage 1: Precontemplation (Not ready for change):

- "Understanding mental health is the first step towards a healthier you. Explore the resources available to learn more."
- "Don't suffer in silence. Let's start a conversation about mental health and find support together."
- "Take a moment to consider the importance of mental well-being. Your journey starts with self-reflection."

#### Stage 2: Contemplation (Considering change):

- "Change begins with self-reflection. Explore your feelings and thoughts about mental health today."
- "You're not alone in your contemplation. Discover stories of others who have transformed their lives through mental health acceptance."
- "Contemplating change is the first step towards a brighter future. Learn about the benefits of embracing mental health."

#### Stage 3: Preparation (Getting ready for change):

- "Equip yourself with knowledge and resources to embrace mental health positively. Prepare for a transformative journey."
- "Take charge of your mental well-being. Start planning small steps towards self-care and acceptance."
- "Preparing for change? Seek out a support network and empower yourself with tools to foster mental health."

Stage 4: Action (Initiating change):

- "It's time to take action! Engage in self-care practices and reach out to professionals or support networks for guidance."
- "Every small step counts. Embrace mental health by adopting healthy habits and engaging in activities that promote well-being."
- "You're on your way to a healthier mind. Stay committed to self-care and inspire others to take action too."

Stage 5: Maintenance (Sustaining change):

- "Celebrate your progress! Maintain your mental well-being through continued self-care practices and ongoing support."
- "Consistency is key. Stay connected with your support system and enjoy the benefits of a healthier mindset."
- "You've come a long way, and your journey isn't over. Continue prioritizing mental health and inspire others to do the same."

## **VIII. Messages for promoting the adoption of a pet**

1. Precontemplation Stage (Unaware or Uninterested):

- "Discover the joy of pet companionship! Learn about the benefits of adopting a furry friend."
- "Find out how adopting a pet can bring happiness and love into your life."
- "Explore the world of pet adoption and see how it can transform your daily routine."

2. Contemplation Stage (Considering Change):

- "Thinking about adopting a pet? We're here to answer your questions and provide guidance."
- "Imagine the bond you can create with a loyal pet. Consider the possibilities of adoption."

- "Explore the different types of pets available for adoption and see if one resonates with you."
3. Preparation Stage (Getting Ready for Change):
- "Ready to take the next step? Discover our adoption process and get prepared."
  - "Plan for your new family member. Learn about pet care, supplies, and creating a safe environment."
  - "Get your home pet-ready! Find out how to ensure a smooth transition for your adopted pet."
4. Action Stage (Taking the Plunge):
- "Adopt your new best friend today! Explore our selection of adorable pets waiting for a forever home."
  - "Visit our adoption center and meet your perfect match. Start the amazing journey of pet companionship!"
  - "Congratulations on adopting a pet! Discover helpful resources and tips for a successful integration."
5. Maintenance Stage (Sustaining the Change):
- "Celebrate your pet adoption anniversary! Share your story and inspire others to follow in your footsteps."
  - "Enjoy the rewards of pet ownership. Explore ongoing education, health care, and training options."
  - "You've made a lifelong commitment. Discover how to keep the bond alive and provide the best care for your pet."

## **IX. Messages for promoting reading**

1. Precontemplation Stage (Not considering reading as a regular activity):
- "Discover the magic of reading! Start exploring new worlds and expanding your horizons today."
  - "Unleash the power of reading! It's never too late to embark on a journey through the pages of a great book."
  - "Imagine the joy, knowledge, and inspiration waiting for you in books. Let's open a new chapter in your life!"
2. Contemplation Stage (Considering the benefits of reading but hesitant):

- "Curiosity sparked. Adventure awaits. Dip your toes into the world of reading and unlock countless possibilities."
- "Pondering the rewards of reading? Take a leap of faith and let books captivate your imagination and enrich your mind."
- "Contemplating the joy of reading? Join a community of book lovers and experience the transformative power of words."

### 3. Preparation Stage (Getting ready to incorporate reading into daily life):

- "Prepare to ignite your passion for reading! Gather your favorite books, find a cozy spot, and get ready for an adventure like no other."
- "Equip yourself for a reading revolution! Create a reading nook, compile a reading list, and set the stage for a lifelong love affair with books."
- "Preparation is key! Set aside dedicated reading time, gather recommendations, and embrace the wonderful habit of reading."

### 4. Action Stage (Actively engaging in reading):

- "Congratulations on taking action! Dive into the pages of captivating stories, gain knowledge, and experience the transformative joy of reading."
- "Unlock the power of imagination through action! Immerse yourself in fascinating narratives and let reading shape your perspective on life."
- "You're on a roll! Keep the reading momentum going. Discover new authors, genres, and ideas. Your reading adventure awaits!"

### 5. Maintenance Stage (Sustaining reading as a regular habit):

- "Maintain the magic of reading! Continue to explore new genres, share book recommendations, and inspire others to embark on their reading journey."
- "You've made reading an integral part of your life. Keep the flame alive! Discover hidden gems, join book clubs, and experience the lifelong rewards of reading."

- "Congratulations on maintaining a love for reading! It's a lifelong gift. Keep expanding your literary repertoire and inspire others to join the reading revolution."

## **X. Messages for promoting smoking cessation**

### 1. Precontemplation Stage (Not ready to quit):

- "Learn the facts: Smoking increases your risk of heart disease, cancer, and respiratory problems. Start gathering information to make an informed decision."
- "Reflect on your values: Imagine a future where you are free from addiction, enjoying a healthier, smoke-free life."

### 2. Contemplation Stage (Considering quitting):

- "Picture a smoke-free you: Visualize the benefits of quitting smoking - improved health, increased energy, and a longer life."
- "Explore your motivations: Identify the reasons why quitting smoking is important to you, your loved ones, and your overall well-being."

### 3. Preparation Stage (Getting ready to quit):

- "Set a quit date: Choose a specific date to start your smoke-free journey and mark it on your calendar. It's a significant step towards a healthier lifestyle."
- "Build a support network: Inform your family and friends about your decision to quit smoking. Seek their encouragement and assistance during challenging times."

### 4. Action Stage (Quitting smoking):

- "Take it one step at a time: Break your smoking habit into manageable chunks. Celebrate each small victory along the way as you stay committed to your smoke-free goal."
- "Find healthy alternatives: Replace smoking with positive activities such as exercise, hobbies, or spending time with loved ones. Discover new ways to cope with stress."

### 5. Maintenance Stage (Maintaining a smoke-free life):

- "Celebrate milestones: Acknowledge your progress and reward yourself for staying smoke-free. Treat yourself to something special as a reminder of your achievement."
- "Guard against relapse: Stay vigilant and recognize potential triggers. Build a strong support system that will help you stay on track and overcome any challenges."

## **XI. Messages for promoting sustainability**

### **1. Precontemplation Stage (Not yet considering change):**

- "Discover the power of sustainability and its positive impact on your world."
- "Uncover the hidden benefits of sustainable living for a brighter future."
- "Explore how small changes can make a big difference for a sustainable planet."

### **2. Contemplation Stage (Thinking about change):**

- "Imagine a sustainable future where your actions contribute to a thriving planet."
- "Reflect on the benefits of sustainable choices and consider taking the first step."
- "Picture a world where every decision you make aligns with a sustainable lifestyle."

### **3. Preparation Stage (Preparing for change):**

- "Equip yourself with practical tools and resources to kick-start your sustainable journey."
- "Plan for a sustainable lifestyle by setting achievable goals and creating a roadmap."
- "Get ready to make a positive impact on the environment with simple, actionable steps."

### **4. Action Stage (Taking steps towards change):**

- "Join the movement and become an agent of change for a sustainable planet."
- "Implement sustainable practices in your daily life and inspire others to follow suit."
- "Take action now to create a greener, healthier future for generations to come."

#### 5. Maintenance Stage (Sustaining the change):

- "Celebrate your sustainable achievements and inspire others with your success story."
- "Continue to nurture your sustainable habits and enjoy the long-term benefits."
- "Embrace a lifestyle that harmonizes with nature and cultivates a sustainable legacy."

## **XII. Messages for promoting a vegetarian consumption**

### 1. Precontemplation Stage (Not considering change):

- "Discover the benefits of a vegetarian/vegan lifestyle and how it can positively impact your health and the environment."
- "Learn about the ethical reasons behind choosing a vegetarian/vegan lifestyle and its impact on animal welfare."
- "Explore delicious plant-based recipes that can open up a whole new world of flavors and culinary experiences."

### 2. Contemplation Stage (Considering change):

- "Reflect on the reasons why you are considering a vegetarian/vegan lifestyle and how it aligns with your personal values and beliefs."
- "Find support and join a community of like-minded individuals who can share their experiences and provide guidance on transitioning to a vegetarian/vegan lifestyle."
- "Take small steps towards vegetarianism/veganism, such as participating in meatless Mondays or experimenting with plant-based meals."

### 3. Preparation Stage (Preparing for change):

- "Develop a meal plan and gather resources to ensure a balanced and nutritious vegetarian/vegan diet."
- "Educate yourself about alternative protein sources to meet your nutritional needs and fuel your body in a sustainable way."
- "Start exploring vegetarian/vegan-friendly restaurants, food products, and cooking techniques to make your transition smoother and more enjoyable."

### 4. Action Stage (Making the change):

- "Embrace the vegetarian/vegan lifestyle and experience the positive changes in your health, energy levels, and overall well-being."
- "Share your journey with others and inspire them to join you in adopting a more compassionate and sustainable way of living."
- "Celebrate your progress and achievements as you explore new flavors, support ethical practices, and reduce your environmental footprint."

#### 5. Maintenance Stage (Sustaining the change):

- "Continuously educate yourself about the latest developments in vegetarian/vegan nutrition and culinary trends to keep your diet varied and exciting."
- "Become an advocate for vegetarianism/veganism by sharing your knowledge, experiences, and recipes with friends, family, and your community."
- "Celebrate the positive impact you are making on your health, animal welfare, and the environment, and inspire others to join you on this journey."

### **XIII. Messages for promoting selective waste collection**

#### Stage 1: Precontemplation (Unaware of the issue)

- "Discover the power of selective waste collection and its positive impact on the environment!"
- "Did you know that small changes in waste disposal can make a big difference? Learn more about selective waste collection today!"
- "Join us in raising awareness about the importance of selective waste collection. Together, we can make our planet greener!"

#### Stage 2: Contemplation (Considering change)

- "Are you ready to make a positive change? Explore the benefits of selective waste collection and take the first step towards a cleaner future!"
- "Imagine a world with less waste and a healthier environment. Start considering selective waste collection today and be part of the solution!"



- "Pondering over waste reduction? Discover the advantages of selective waste collection and how it contributes to a sustainable future."

#### Stage 3: Preparation (Preparing for change)

- "Ready to take action? Equip yourself with the knowledge and tools for successful selective waste collection. Get ready to make a difference!"
- "Plan your waste reduction strategy with selective collection methods. Prepare yourself and your community for a sustainable tomorrow!"
- "Take the next step and get ready to implement selective waste collection. Find out how to set up your collection system effectively!"

#### Stage 4: Action (Implementing change)

- "Congratulations on taking the leap! Start sorting your waste today and experience the positive impact of selective collection on our environment!"
- "You're making a difference! Embrace the habit of selective waste collection and inspire others to follow suit. Together, we create a greener world!"
- "You've joined the movement! Keep up the great work and continue to champion selective waste collection. Your actions matter!"

#### Stage 5: Maintenance (Sustaining change)

- "You're a waste reduction champion! Maintain your selective waste collection habits and motivate others to do the same. Together, we can achieve a long-lasting impact!"
- "Consistency is key! Keep up the good work with selective waste collection and inspire those around you to adopt sustainable practices. Our planet thanks you!"
- "You've made selective waste collection a way of life. Share your success story and encourage others to stay committed. The environment thrives with your ongoing efforts!"

## Conclusions

To effectively implement personalized messages within the TTM framework, several considerations should be taken into account. Firstly, an initial assessment of an individual's or targeted group's stage of change is necessary to tailor the messages appropriately. This assessment can be conducted through self-report measures or in collaboration with healthcare professionals and specialists in various areas (advertising, marketing communication). Secondly, the messages should be designed to align with the individual's specific needs, motivations, and barriers. This requires a comprehensive understanding of the target behavior and the factors influencing behavior change. Thirdly, the messages should be delivered through suitable channels, such as face-to-face interactions, written materials, mobile applications, or online platforms. Utilizing technology, such as mobile apps or social media platforms, can enhance the accessibility and effectiveness of personalized messages. Lastly, regular follow-up and feedback are essential to track progress, provide ongoing support, and reinforce positive behavior changes.

The Transtheoretical Model (TTM) provides a valuable framework for facilitating positive behavior change and overcoming dysfunctional behaviors across various areas. Personalized messages play a crucial role in tailoring interventions within the TTM framework and have shown promising results in promoting behavior change. By incorporating personalized messages into behavior change interventions, individuals can receive targeted support that addresses their unique needs, motivations, and barriers. Moving forward, further research and practical implementation of personalized messages within the TTM framework can contribute to more effective behavior change interventions and ultimately improve individuals' health and well-being.

In this brief article, we have designed messages for change for 13 different areas (alcohol cessation, stopping bullying, promoting child adoption, raising awareness for climate change, promoting daily exercising, a healthy lifestyle, raising awareness about mental health issues, promoting pet adoption, promoting reading, smoking cessation, sustainability awareness, vegetarian lifestyle and waste collection). We have done this within the Transtheoretical Model approach, considering that individuals and groups can be in different stages of (mental and behavioral) change and thus communication should be different, according to the state they are in. Organizations that work in the field of behavioral and attitude change can use the information in this article to start designing their communication accordingly and better understand that messages have to be personalized according to

(1) the characteristics of the targeted groups (the avatars), (2) the stage they are in (described in the Transtheoretical Model) and (3) other factors (socio-demographic or cultural ones).

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