

# CONSCIOUSNESS: Ideas and Research for the Twenty-First Century

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Volume 9 | Issue 1

Article 2

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10-5-2022

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### Recommended Citation

Braticevic, Milena (2022) "Psychophysiological Effects of Increasing Awareness of Nondual Consciousness in Young Adults with Depression and Anxiety," *CONSCIOUSNESS: Ideas and Research for the Twenty-First Century*. Vol. 9: Iss. 1, Article 2.

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## **Psychophysiological Effects of Increasing Awareness of Nondual Consciousness in Young Adults with Depression and Anxiety**

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### **Abstract:**

Young adults increasingly suffer from anxiety and depression during the time of transition into adulthood. This research study examined the effects of increasing awareness of nondual consciousness in young adults who were experiencing various levels of anxiety and depression. The methodology was mixed-method and included four 1-hour group-based sessions over 4 weeks. Increasing awareness of nondual consciousness through educational, experiential, and behavioural components resulted in reduction in the average depression score from 19.4 (borderline clinical depression) to 10 (normal), and reduction in the average anxiety score from 12.7 (moderate anxiety) to 6.9 (mild). Participants reported increased mental, emotional, physical, and spiritual wellbeing, as well as reduced worry, higher sense of interconnectedness, clarity, creativity, confidence, and agency. At 30-days and 6-months, depression was further reduced by 12% and 17% respectively, while anxiety was reduced by 22% and 27%, indicating a potential upward spiral. The study was repeated during the COVID-19 pandemic with similar results, indicating the effectiveness of the methodology during highly uncertain times. Increasing awareness of nondual consciousness can contribute to prevention and early intervention for depression and anxiety, decreased need for medication, and reduction of stigma.

*Keywords:* anxiety; depression; mental health; young adults; nonduality; natural state; prevention; early intervention.

### **Introduction**

Young adulthood is an important transitional period in life during which major changes occur impacting the future, career, socio-economic security, health, and wellbeing of individuals (Bonnie, Stroud, & Brenier, 2014). This is also the time when individuals

start experiencing significant life challenges, including common mental health disorders such as anxiety and depression. Due to the stigma associated with mental illness, young adults typically wait to seek treatment until symptoms become severe, and do not receive timely treatment due to limited resources. This can cause symptoms to escalate further, making treatment more difficult and costly.

Despite treatments such as medication and therapy showing only moderate results, few resources are available for prevention and early intervention for anxiety and depression. Rather than focusing on symptoms and diagnosis, prevention and early intervention methods would examine common mental health disorders from the perspective of the philosophy of mind and explore conditions for healthy mental development. Increasing awareness of nondual consciousness, and of change and transformation as natural processes, can contribute to clearer perception and reveal a new way of experiencing the world that is more integrative and creative. Methods that explore the integrated nature of the mind could contribute to the paradigm shift in the mental health field and a sustainable framework for mental health literacy and prevention of anxiety and depression.

### **Anxiety and Depression in Young Adults**

Young adulthood is a significant time of development, when individuals are expected to take on new responsibilities related to career, family, and personal life. Young individuals face a less predictable future today compared to previous generations due to increased costs of education, difficulty in finding entry-level jobs, higher unemployment, and higher costs of living (Bonnie, Stroud, & Brenier, 2014). Statistics show a worrying trend in mental health and well-being of young adults. According to the National Institute on Drug Abuse (2018), this demographic is most affected by abuse of prescription medication, including opioid pain relievers, ADHD stimulants, and anti-anxiety drugs. Anxiety and depression were reported as the two most common causes for college students seeking counselling, with 51% of students reporting having anxiety, and 41% reporting depression (Reetz, Bershad, LeViness, & Whitlock, 2016). The prevalence of depression in young adults has increased in recent years (Mojtabai, Olfson, & Han, 2016). Prevalence of major depression in young adults in the United States has increased by 63% between 2005 and 2017, with nearly three quarters of young adults experiencing hopelessness (Twenge, Cooper, Joiner, Duffy, and Binau, 2019). Spending time on new media was associated with mental health issues (Twenge, Joiner, Rogers, & Martin, 2017), while mental health was frequently stigmatized on social media (Robinson, Turk, Jilka, & Cella, 2018).

Loneliness is often experienced together with anxiety, due to feelings of failure and disappointment in a culture where young people are expected to be socially successful and connected to others (Batsleer, Duggan, McNicol, Spray, & Angel, 2018). According to the UK Office of National Statistics (2018), young adults aged 16 to 24 years reported feeling more lonely than those in older age groups. Both depression and loneliness can lead to a diminished sense of personal control, maladaptive coping and “learned helplessness” (Cacioppo & Patrick, 2008, p. 83). Studies show that maladaptive coping such as excessive worrying and anxious avoidance was the main predictor of depression, anxiety, and stress in young adults (Mahmoud, Staten, & Lennie, 2012). Reducing maladaptive and increasing adaptive coping behaviors, such as handling problems directly and trying to prevent adverse effects, can therefore have a positive impact on the wellbeing of young adults.

## Current Treatment for Anxiety and Depression

Prevalence of depression among young adults has increased in recent years, while there has been little change in available treatments. Key challenges to adequately addressing mental health needs of young adults include “shortage of mental-health professionals, the fairly low capacity and motivation of non-specialist health workers to provide quality mental-health services to young people, and the stigma associated with mental disorders” (Patel, Flisher, Hetrick, & McGorry, 2007).

Current treatments for anxiety and depression include medication and psychotherapy, including cognitive behaviour therapy (CBT) and mindfulness-based CBT (MBCT), as well as yoga and nature-based therapy. Antipsychotic medication is commonly prescribed to young adults, with 34.5% of the prescriptions attributed to treatment of depression (Olfson, King, & Schoenbaum, 2015). Antipsychotic use in adolescents and young adults is on the rise, despite concerns about risks on the cardiovascular and metabolic health of young people (Olfson, King, & Schoenbaum, 2015). Studies have shown that, while use of antipsychotic medication was highly effective in reducing symptoms and improving quality of life in short-term interventions, long-term use posed risks of brain atrophy and a lower rate of recovery (Tiihonen, 2016). Antipsychotic medication is often prescribed together with other psychotropic medication, such as stimulants, which poses additional risks from adverse effects (Olfson, King, & Schoenbaum, 2015).

Only a minority of young adults who are treated with antipsychotics for mental disorders are also offered psychotherapy (Olfson, King, & Schoenbaum, 2015). While medications act directly on neurochemical pathways to reduce negative emotions, CBT focuses on restructuring maladaptive thought patterns to develop more positive ways of thinking, leading to improved emotional and behavioral responses (Field, Beeson, & Jones, 2015). CBT works on memories and emotions associated with memories to help individuals improve emotional reactions by examining thought patterns, interrupting rumination, and creating new cognitive connections. Studies on efficacy of brief CBT interventions in schools showed decreases in symptoms of anxiety and depression among students (Dickson & Gullo, 2015).

MBCT combines mindfulness training with CBT to encourage individuals to become more aware of their thoughts, feelings, and bodily sensations, and to learn a new way to relate to environmental influences (MacKenzie, & Kocovski, 2016). Mindfulness meditation was shown to contribute to reduction of psychological symptoms, without harmful effects (Zoogman, Goldberg, Hoyt, & Miller, 2015). In her book *Mindfulness*, Langer (1989) explained that mindlessness is rooted in rigid thought categories, automatic behaviour, repetition, belief in limited resources, and narrow perspectives, which results in wasted potential and unheeded opportunities. In contrast, a mindful state of being involves openness to new information and different points of view, and awareness of more than one perspective (Langer, 1989). A preoccupation with an outcome could make an individual mindless, while development of mindfulness involves the creation of a process orientation (Langer, 1989). MBCT treatment can lead to a decrease in relapse rates, although the treatment had mixed outcomes when it came to improving depressive symptoms compared to traditional CBT approaches (MacKenzie, & Kocovski, 2016). Treatments with anti-depressant medication and CBT have been shown as only moderately effective, with fifty to sixty percent of patients responding to treatment, compared to forty percent receiving pill placebo (Iovieno,

Tedeschini, Ameral, Rigatelli, & Papakostas, 2011; Cuijpers, Karyotaki, Weitz, Andersson, Hollon, & van Straten, 2014).

Studies showed potential benefits of yoga intervention in young adults with elevated symptoms of depression (Woolery, Myers, Sternlieb, & Zeltzer, 2004). Mindful walking in nature had significant positive effects on anxiety and depression in young adults (Lee et al., 2014). Forest therapy interventions improved wellbeing through walking and a sensory immersion in natural environments, positively affecting mood and decreasing anxiety when compared to walking in an urban setting (Lee et al., 2014).

The increasing prevalence of anxiety and depression in young adults and moderate effectiveness of current treatments point to a need for innovative approaches based on prevention and early intervention. Addressing mental health at the fundamental level by examining the nature of the mind can contribute to the development of prevention-oriented methods for improved mental health and wellbeing.

### **Nature of the Mind**

When looking into the nature of the mind, it is important to observe that the mind is not a fixed or independent entity. The mind is embodied, emerging and relational in nature (Siegel, 2011).

#### *The Mind-Body Connection*

In his book *Bioenergetics*, Lowen (1994) explained that, “The energetic processes of the body determine what goes on in the mind just as they determine what goes on in the body” (p. 44). Functions such as breathing, movement, feeling, and self-expression facilitate the flow of energy in the body.

A person who doesn't breathe deeply reduces the life of his body. If he doesn't move freely, he restricts the life of his body. If he doesn't feel fully, he narrows the life of his body. And if his self-expression is constricted, he limits the life of the body. (Lowen, 1994, p. 43).

The health of the body and mind depend on the inner harmony and absence of restraint to the flow of feeling and movement (Lowen, 1994). The positive impact of flow of feeling and movement on mental health was demonstrated in studies on dance movement therapy, shown to be effective in the treatment of adult depression, and leading to improvements in cognitive tests and a reduction in depression symptoms (Karkou, Aithal, Zubala, & Meekums, 2019).

The mind-body connection can also be experienced through the ancient practice of Vipassana. In Vipassana meditation, one experiences subtle changes through bodily sensations to increase awareness of impermanence, leading to a more direct experience of the world beyond the conceptual mind. Glickman (2002) explained how bodily sensations provide insight into impermanence, while preoccupation with thoughts leads to rigidity:

What we call me or myself is a constantly changing phenomenon that doesn't stay still for a moment and doesn't have distinct boundaries. . . Sensations can give a direct, experiential knowledge of some basic truths the Buddha wanted us

to see: transience, lack of self, and the futility of grasping after experiences. Thinking tends to have the opposite effect. Thoughts seem to seize and harden the ephemeral and amorphous. (p. 18)

### *Mind as an Emerging and Relational Property*

The mind is an emerging property and a relational process that regulates the flow of energy and information (Siegel, 2011). Depression and anxiety are experienced in relationship to the inner and outer worlds (Siegel, 2011). The emerging property of the mind contributes to the ability to learn, develop, and mature mentally. In her study on mindset and depression, Dweck (2006) discovered that mindsets affect how individuals deal with challenges. Dweck (2006) found that students with fixed mindsets had higher levels of depression, believing that the setbacks they were experiencing “meant that they were incompetent or unworthy” (p. 38). Students with growth mindsets, on the other hand, believed that their qualities could be developed and did not feel defined by their failures. Teaching growth mindset strategies can reduce depression and anxiety and strengthen perceived control, as well as improve academic results (Schleider & Weisz, 2018; Broda et al., 2018). Developing a flexible or growth mindset can contribute to a prevention-oriented mental health paradigm as young adults reach adulthood.

The science of neuroplasticity indicates that the “neurons that fire together wire together”, as connections between neurons can be either strengthened due to repeated experiences or weakened due to non-use (Doidge, 2015, p. 7). The brain can develop new connections through new experiences (Warraich & Kleim, 2010; Fuchs & Flugge, 2014). Neuroplasticity is impaired in major depressive disorders (Albert, 2019), while repetition of painful experiences can result in exponential negative effects by increasing the brain’s receptivity to pain (Coderre, Katz, Vaccarino, & Melzack, 1993; Osborne, Anastakis, & Davis, 2018).

The relational property of the mind indicates that the health of the mind depends on the quality of relationships with the self, others, and the natural world. The science of ecopsychology holds human relationship with nature as fundamental to the development of the psyche. According to Sampson (2012), “The eco-crisis currently threatening humanity and much of the biosphere is less an external crisis of environment than an internal crisis of the mind” (p. 23). If individuals do not perceive unity, integration, and co-creation that exists in nature, they are not likely to act in accord with natural principles and are more likely to engage in fundamentally destructive behavior (Fisher, 2012). An integral perspective shows that things are not only connected but are implied in one another: “My lungs have no meaning without air, which has no meaning without plants, which have no meaning without the sun, and so on ad infinitum” (Fisher, 2012, p. 92).

Depression and anxiety may occur when beliefs and thoughts are inconsistent with the nature of reality, and the mind is experienced as fixed and separate rather than emerging and relational. Understanding the fundamental principle of emergence and interconnectedness in nature therefore may be the key to a lucid, healthy mind.

### *The Adaptive Quality of the Mind*

Human experience involves conscious, as well as unconscious processes occurring in the psyche. In his book *Strangers to Ourselves*, Wilson (2002) described the unconscious mind as having an adaptive quality, or the ability to adjust based on life experiences. The adaptive unconscious consists of multiple systems operating on autopilot in fast, unintentional, uncontrollable, and rigid ways (Wilson, 2002). The adaptive unconscious is based on pattern-detection and is sensitive to negative information, as it builds up evidence for negative patterns while attempting to protect the individual from harmful influences (Wilson, 2002). On the other hand, the conscious mind is identified as a single system that is sensitive to positive information. The conscious mind is slower to develop, more controlled, as well as intentional, effortful, and flexible (Wilson, 2002).

The mind can develop and adapt at both unconscious and conscious levels based on genetic predispositions as well as epigenetic phenomena or environmental influences. Studies in epigenetics showed that life circumstances such as a mother's care, early life stress and diet could trigger a change in gene expression that contributed to depression and neurological changes in aging (Nestler, E. J., 2014; Schroeder, Krebs, Bleich, & Frieling, 2010; Pal, S. & Tyler, J.K., 2016). Developing resilience and the ability to consciously process and integrate environmental influences is therefore important for a healthy mind.

### *Ego Development and Levels of Consciousness*

Development of the mind can be examined in the context of personality or ego development, or levels of consciousness. Freud (1923) explained that "The division of the psychical into what is conscious and what is unconscious is the fundamental premise of psycho-analysis" (p. 2). According to Freud (1923), the ego is the executive function of the mind that involves reason and common sense. The id and super-ego operate at the unconscious level, the id being concerned with instincts and passions and super-ego with morality and guilt. The ego is responsible for bringing unconscious activity to the conscious level and can cause resistance. While Freud (1923) thought that the goal of psychoanalysis was to remove the resistance, moral judgement, and guilt that resided in the unconscious mind, Jung (1933) believed that the goal of therapy was to befriend the unconscious mind and allow it to be a source of inspiration, creativity, and connection to the world.

Levels of consciousness can indicate stages of ego development in terms of how an individual integrates experiences and views him or herself in relation to the world. Drawing on the works of Clare Graves and spiral dynamics, Wilber (2000) described the psychology of an adult human being as an "unfolding, emergent, oscillating spiralling process . . . [in which] new, higher order systems replace older, lower-order behaviours" (p. 40). Wilber (2000) described the spiralling waves of existence as belonging to either first-tier or second-tier levels of being. First-tier experiences allow for the awakening of the social self that strives for belonging, acceptance, and preservation of the self. The second-tier levels of being include integrative, harmonizing, and holistic experiences.

Cook-Greuter's (2005), Ego Development Theory (EDT) examined the psychology of meaning-making in terms of how individuals interact (behavioural dimension), feel about things (affective dimension), and think about their experiences (cognitive dimension). At the initial stages of development, individuals are primarily concerned with survival, accumulating facts and knowledge, and conventional or linear reasoning

based on socially accepted norms. While the conventional Western view is typically based on a separation between subject and object, the shift in consciousness from conventional to post-conventional is marked by a “shift from differentiation to integration . . . an overall trend of assimilation and integration towards an ever more conscious sense of belongingness and unity” (Cook-Greuter, 2005, p. 5).

### *Attention and the Quality of Perception*

Attention plays a significant role in mental functioning (Blackmore, 2004). Since attention can be distracted, the individual needs to use personal will to direct attention towards conscious experiences. Direct experience can lead to answers about the world and true nature of reality (Blackmore, 2004). Methods for examining direct experience include “private intellectual inquiry, inner creative work, moral and spiritual development, personal exploration of altered states of consciousness, and disciplined training of attention and observation” (p. 414). Blackmore (2004) described perception as a dynamic process, an act of creative engagement with the world based on one’s quality of consciousness.

According to Lipton (2005), development of the conscious mind is the key to physical and mental health. Lipton (2005) related that beliefs control biology, and that a fully conscious mind surpasses both nature and nurture. Similarly, Steiner (2011) believed that, “man has it in his power to perfect himself, and, in time, completely to transform himself. But this transformation must take place in his innermost self, in his thought-life” (p. 6). It is important to become aware of the hidden nature of reality, beyond the physical senses, to have a complete understanding of the world: “We must have experienced the divine within ourselves, before we can hope to discover it in our environment” (Steiner, 2011, p. 8).

Understanding the mind at a deeper level involves a recognition of the embodied, emerging, and relational nature of the mind. Ego development and active perception can contribute to mental health by facilitating the experience of oneself in relation to the inner and outer worlds. The direct experience of nondual consciousness can reflect the integrated nature of reality in human experience.

### **Nonduality and the Natural State**

Written teachings on nonduality originated with the Upanishads and the philosophy of Advaita Vedanta, *advaita* meaning not two, one without a second, or oneness (Buckland, 2018). Advaita is not a philosophical concept, it is a state of being and can be known only through direct experience (Buckland, 2018). In Buddhist philosophy, nonduality is described as dependent origination, or a dynamic unfolding of existence where all things are deeply connected. According to Buddhist philosopher Nagarjuna, all phenomena are devoid of inherent existence, cannot exist on their own, and are therefore empty (Komito, 1987). Everything that exists originates in mutual inter-dependence. The ability to experience this inter-dependence, and not view things as separate from one another, is the key to true knowledge. “It is the inability to experience things just as they are, without blocking or warping our experience, that leads to distortion of consciousness” (Komito, 1987, p. 31).

Physicist David Bohm explored the eternal and everchanging process of motion and development that is inherent in nature. Bohm called this the “process of becoming”, in

which there is no limit to the number of new kinds of things that can come into being, or transformations that can occur (Nichol, 2003, p. 32). Ramana Maharshi believed that “God is everything and everything is God” (Osborne, 1970, p. 104). While nondual awareness has been explored for centuries in various philosophies and spiritual practices as a key to wisdom and wellbeing, modern science is increasingly exploring the health benefits of nondual states of consciousness.

Nondual consciousness is an experiential state of being that is beyond the thinking mind. As it is not conceptual, nondual consciousness cannot be adequately described in words. It is an experience of deep integration and mutual inter-dependence between the self, others, and nature. Josipovic (2010) found that nondual consciousness, also called “open awareness” or “open presence”, preceded conceptual awareness and was free of the subject-object dichotomy (Josipovic, 2010, p. 2). Nondual meditation leads to increased correlation between areas of the brain associated with experiences of external and internal events, leading to increased integration (Josipovic, 2012, p. 1). A nondual approach to meditation fostered the realization of the natural unity of experience, reducing ruminative thinking and resulting in a progressive decrease in the habitual fragmenting of the experience of self and other (Josipovic, 2014, p. 3). As a result, nondual awareness meditation enabled the state of mind in which extrinsic and intrinsic experiences were synergistic.

Recent studies on therapeutic effects of psychedelics indicated that their use facilitated nondual experiences and profoundly influenced perception and a sense of meaning. Psychedelics induced states of consciousness that created a “disruption or interruption of the repetitive, rigid, and pathological patterns of negative and compulsive thoughts” and contributed to mental flexibility and changes in perspective, mood, values, and behavior (Osório et al., 2015, p. 11). Research on the effects of psychedelics on brain chemistry indicated a reduction in the default mode network (DMN) activity (Pollan, 2018), and reduced the reactivity of the amygdala, associated with improved emotional processing and increased positive moods (Kraehenmann, Preller, Scheidegger, Pokorny, Bosch, Seifritz, & Vollenweider, 2015). Ayahuasca had fast anti-depressant effects in users who were resistant to treatment (Palhano-Fontes, et al., 2019). Ayahuasca users “performed better in neuropsychological tests, scored higher in spirituality and showed better psychosocial adaptation by some attitudinal tests such as Purpose in Life and Subjective Well-Being. Overall differences with the control group were still observable at follow-up one year later” (Bouso, et al., 2012, p. 10, para 5).

Through direct experience, nondual states allow for a deeper understanding of unity beyond the rational mind. To gain true understanding, it is important to go beyond the dualism of the rational mind, and to “unify with the thing itself, to experience it” (Motoyama, 1978, p. 23). Attainment of nondual awareness can be done through practice, by being completely involved in experiencing rather than preoccupied with thinking (Suzuki, 1999). The practice of contemplation can dispel the ignorance of dualistic conditioning and allow the natural state to shine through. Norbu (1996) used the metaphor of the sun's rays obstructed by clouds to describe how the purity of the natural state could be obstructed by dualistic vision:

The primordial state contains in potentiality the manifestation of enlightenment. The sun, for example, naturally has light and rays, but when the sky is cloudy, we do not see them. The clouds in this case represent our obstacles that are a result of dualism and conditioning: when they are overcome, the state of self-

perfection shines with all its manifestations of energy, without ever being altered or improved. (p. 88)

Adyashanti (2006) taught that enlightenment is a natural state of being, and not a state of mind. A natural state is a “state which is not contrived, a state that requires no effort or discipline to maintain, that is completely natural and spontaneous” (p. 7). According to Adyashanti (2006), “To perceive everything as one is not an altered state of consciousness. It’s an *unaltered* state of consciousness; it’s the natural state of consciousness. By comparison, everything else is an altered state” (p. 18). The natural state involves “effortless effort”, which means that there is just enough effort to sense what is alive in an individual (Adyashanti, 2006, p. 26). The ability to experience the natural state involves changing the focus of perception from sensory-based input to an underlying unity. According to Gangaji (2005), “The original sin, the original mistake, is the belief that separation from the source, from consciousness, from God, is even possible. Since separation is our experience, we believe it to be reality. This mistaken perception is the root of all suffering” (p. 43).

The main point is not to try to control the mind, but to understand the mind’s true undifferentiated nature. Abiding in the natural state can help clear away errors in judgement and ignorance, shifting the experience of reality from a fragmented towards an integrated, unified worldview.

### **Methodology**

The research methodology was mixed-method. Quantitative data included the levels of depression and anxiety before and after the study, demographics such as age, occupation, number of years experiencing symptoms, and any previous treatment. Qualitative data included information about participant familiarity with the concepts, perceived usefulness of theoretical knowledge, as well as descriptions of physical, emotional, mental, and spiritual experiences during the experiential and behavioural components of the study. The mixed-method design was used to indicate any change in states of depression and anxiety among participants and evaluate the progress of awareness and experience of nondual consciousness over the four sessions.

The research design included weekly one-hour sessions over a period of four weeks, for a total of four sessions. Each session had educational, experiential, and behavioural components. Session topics included nonduality, the natural state, the relational nature of the mind, and looking at future challenges such as environmental sustainability from an integral perspective. The educational component served to introduce concepts such as nonduality and the natural state and their theoretical background, while the experiential component allowed for the use of theoretical knowledge in the practice and cultivation of the experience of nondual consciousness. The behavioural approach was used to translate both the theoretical and the experiential components of the study into the real world of daily experience and consistent practice.

### *Population*

The study was conducted in April-May 2019, and included 17 young adults between 18 and 29 years of age (ave. age 23.5) living in Toronto, Canada. 59% were students, of various socio-economic backgrounds. Participants identified as 76% female, 18% male, and 6% non-binary. None of the participants were on medication at the time of the

study. Participants reported experiencing symptoms of anxiety and depression between 6 months and 14 years (ave. 5.4 years).

Population was representative of young adults who were actively looking for new ways to address their mental health needs and were interested in contributing to mental health research. Participants have had other forms of treatment in the past, including medication, CBT, mindfulness, yoga, and meditation.

### *Procedure*

The topic of the first session was nonduality. During the educational component, duality was described as a way of looking at the world through identification and separation (good vs. bad, mind vs. body, self vs. other), leading to fragmentation. Concepts, thoughts, and language were explained to be dualistic in nature which, while useful for communication, can lead to a limited experience of reality. Nonduality was introduced as a state of being beyond the conceptual mind. The nondual view was described as integrative and reflective of the fact that all things are going through an inter-dependent process of development and change, or the *process of becoming*. An example of a dualistic and non-dualistic view was presented by looking at an object (coffee mug) from both perspectives.

During the experiential component, participants were led through a 10-minute meditation, starting with the relaxation meditation, and noticing the thoughts come and go. Participants were then guided to notice the space between thoughts and to let it expand. In the behavioural exercise, participants were instructed to contemplate dualistic and non-dualistic perspectives during the week and practice experiencing space between thoughts.

The topic of the second session was the natural state, which was explained as the direct experience of life beyond concepts, limits, and separation, a state of effortless effort, of feeling alive (Adyashanti, 2006). Effortless effort was described as a flow state, an experience of timelessness in which one is immersed in being, rather than preoccupied with doing or attaining a specific outcome. The natural state was described as a relaxed state of awareness and contemplation, and metaphors of the mirror and the light of the sun were used to illustrate the natural state. Objects that appear in the mirror were described to be like to the thoughts that come and go, while the reflective nature of the mirror was like the natural state, unchanged by objects that appear in it. Similarly, the light of the sun was described to be like the natural state in that it continuously shines even when there are clouds in the sky. The clouds were described to be like thoughts or mental conditioning obstructing the natural state. The importance of accessing the natural state was explained through the science of Heart Rate Variability (HRV), the measure of the ability to switch from an active into a relaxed state, an important indicator of resilience and overall wellbeing.

During the experiential exercise, participants were led through a 10-minute meditation, starting with the relaxation exercise, and noticing the thoughts come and go. Participants were then guided to notice the space between thoughts as their natural state and experience the state of effortless effort and feeling alive. In the behavioural exercise, participants were instructed to practice accessing the natural state during the week by experiencing the space between thoughts and contemplating the natural state being like the light of the sun.

In the third session, the mind was described as embodied, emerging, and relational in nature. The embodied quality was explained as the mind-body connection, while the emerging quality was described as the mind's ability to grow and develop. The relational aspect of the mind was explained one's quality of relationship with the Self, others, and nature. Perception was described as a *dynamic act of creative engagement with the world* based on the awareness of the Self in relation to the world. Ego developmental stages were introduced, from conventional (egocentric and ethnocentric) to postconventional (world-centric, individualist, pluralist, and unitive). The shift from conventional to post-conventional ego stages was described as a paradigm shift from a dualistic to a nondual worldview, involving increasing awareness of complexity and integration. Key aspects of the nondual paradigm were explained in terms of acceptance, paradox, shared power, letting go of control, and trusting in the inter-dependent process of becoming.

During the experiential exercise, participants were led through a 10-minute meditation to experience the space between thoughts, a state of effortless effort, and feeling alive, while contemplating the statement "My lungs have no meaning without air, which has no meaning without plants, which have no meaning without the sun, and so on ad infinitum" (Fisher, 2012, p. 92). Behavioural exercises included contemplating the natural state along with the statement from the experiential exercise throughout the week.

The fourth session included a review of sessions 1-3, and a discussion about future challenges in the context of the integral view. Topics included economic and environmental sustainability and the implications of economic growth, the future of technology and the need for humans to work alongside machines, and the future of healthcare with focus on prevention of chronic diseases and an integral approach to health and wellbeing.

During the experiential exercise, participants were guided through a 10-minute meditation to experience nondual consciousness through the space between thoughts and the natural state. Participants were encouraged to continue to practice nondual consciousness in their daily life.

#### *Data Collection*

The Beck Depression Inventory and General Anxiety Disorder GAD-7 Questionnaire were used to determine depression and anxiety scores before and after the study, as well as at 30-days and 6-months after the study.

A Study Sign-up Questionnaire was used to collect demographic data such as age, gender, number of years experiencing symptoms, previous treatment, and reasons for joining the study. The End of Study Questionnaire was used to determine the overall perceived effects on physical, emotional, mental, and spiritual wellbeing, perceived effectiveness of the study compared to other treatments, as well as any change in symptoms related to reasons for joining the study.

Following the educational component of each session, data were collected about participants' previous familiarity with the topics covered, and perceived usefulness of the knowledge gained. Following the experiential and behavioural components,

phenomenological data was collected in the form of participants' written descriptions of experiences. Written reflections included descriptions of any physical, emotional, mental, and spiritual effects of the behavioural exercises.

## Results

### *Depression*

The average depression score before the study was at the level of borderline clinical depression at 19.4. After the study, depression was at the level of normal at 10, showing a reduction of 48% (Figure 1). At the 30-day and 6-month follow-ups, the average depression score was further reduced by 12% and 17% respectively.

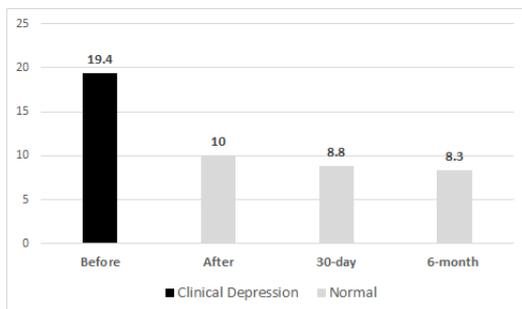


Figure 1. Depression scores based on Beck Depression Inventory (average).

Before the study, 35% of participants had symptoms in the range of normal to mild mood disturbance, while 65% of participants had symptoms of clinical to severe depression. After the study, 82% of participants had symptoms in the normal to mild range, and only 18% had symptoms of moderate depression. Figures 2 and 3 outline the percentage of participants at various levels of depression before and after the study.

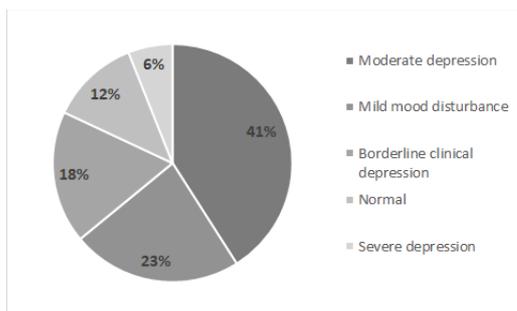


Figure 2. Percentage of participants experiencing various levels of depression (before).

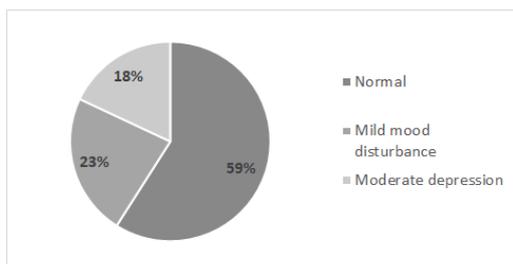


Figure 3. Percentage of participants experiencing various levels of depression (after).

Participants who were at the level of borderline clinical depression before the study (with an average score of 16.5) had a reduction in depression symptoms of more than 50%, while those were at the level of moderate depression (with an average depression score of 24.7) had a reduction in symptoms of less than 50%.

### Anxiety

Before the study, the average anxiety score was at the moderate level at 12.7. At the end of the study, the score was at the mild anxiety level at 6.9, with the average symptom reduction of 46% (Figure 4). At the 30-day follow-up, the average anxiety score was still at mild at 5.4 (further reduction of 22%), and at the 6-month follow-up the average score was normal at 5 (reduction of 27% compared to end of study score).

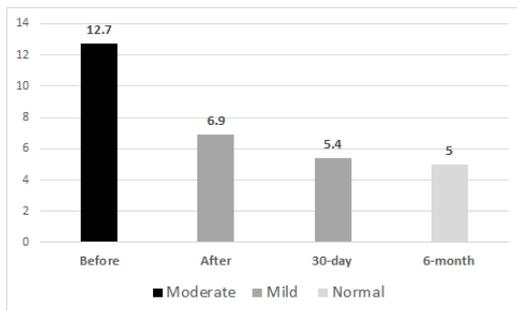


Figure 4: Anxiety scores based on GAD-7 questionnaire (average).

Before the study, 24% of participants had symptoms of normal to mild anxiety, while 76% had symptoms of moderate to severe anxiety. After the study, 76% of participants had symptoms in the normal to mild range, while only 24% had symptoms of moderate to severe anxiety. Figures 5 and 6 outline the levels of anxiety before and after the study.

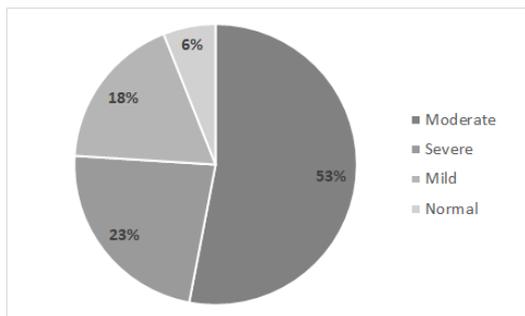


Figure 5. Levels of anxiety experienced based on GAD-7 Questionnaire (before).

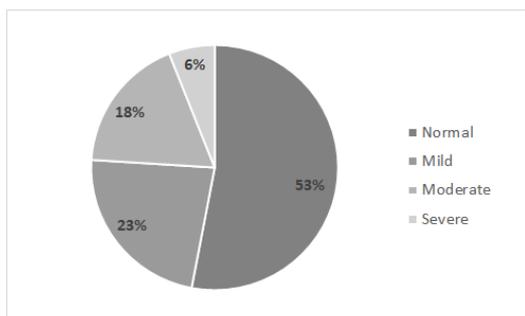


Figure 6. Levels of anxiety experienced based on GAD-7 Questionnaire (after).

### *Reduction in Need for Treatment*

The need for treatment for depression (percentage of individuals with symptoms at clinical depression or higher) was reduced by 72% (Figure 8). The need for treatment for anxiety (percentage of individuals with symptoms at moderate anxiety or higher) was reduced by 68% (Figure 8).

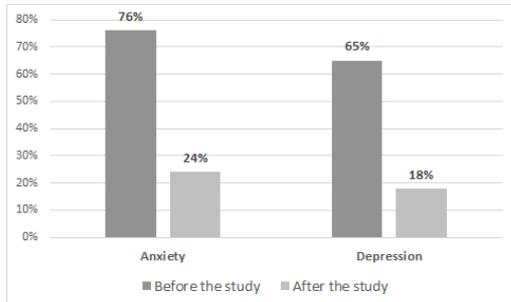


Figure 8. Percentage of participants requiring treatment.

### *Reasons for Joining the Study*

When indicating the reasons for joining the study in the Study Sign-up Questionnaire, participants reported feeling overwhelmed (94%), worried about the future (94%), lack of confidence (88%), confused (76%), disconnected (71%), not where they need to be in life (65%), difficulty communicating (53%), lack of creative expression (47%), and that what they do does not matter (41%).

At the end of the study, participants reported reduction in symptoms of feeling overwhelmed (-65%), worried about the future (-35%), lack of confidence (-29%), confusion (-41%), feeling disconnected (-42%), not where they need to be in life (-30%), difficulty communicating (-29%), lack of creative expression (-35%), and that what they do does not matter (-29%).

### *Familiarity with Concepts and Perceived Usefulness*

58% of participants were not previously familiar with the concept of nonduality, while 88% found knowledge about nonduality helpful. Similarly, 58% of participants were not familiar with the concept of the natural state, and 94% found the knowledge helpful. While 78% of participants were unfamiliar with the emerging and relational nature of the mind, all of them found knowledge about it helpful.

### *Effects on Physical, Emotional, Mental and Spiritual Wellbeing*

All participants (100%) reported that the program positively affected their emotional and mental wellbeing, while 71% reported that it positively affected their physical and spiritual wellbeing. No participants reported experiencing any negative effects on their wellbeing.

Most participants (88%) reported that they found the program to be more effective (47%) or similar (41%) compared to anxiety and depression treatments they had tried in the past. All participants reported that the program was useful and that they would recommend it to others.

### *Phenomenological Data: Experiential Exercises*

During the experiential exercise in session 1, participants generally felt physically uncomfortable, experienced racing thoughts, were easily distracted, and had difficulty relaxing. Participant #1 reported feeling “Physically uncomfortable doing [meditation]”, Participant #2 reported feeling “Physically quite jittery... my mind and body had a difficult time slowing down”. Participant #3 reported “I couldn’t really be present in the meditation . . . my mental state felt cluttered and overwhelming.”

As sessions progressed, participants reported feeling more relaxed and able to meditate and experience the natural state. After the experiential exercise in session 2, participant #3 reported, “This time I was more able to watch my thoughts passing”. Participant #7 stated, “At first, I kept having intrusive thoughts, but as we continued with the exercise it got easier. By the end, I didn’t want to open my eyes. I wanted to stay in that state”.

After the third session, participants generally reported feeling more relaxed and connected, able to experience the natural state, non-judgemental, open, and aware of the bigger picture. Participant #1 stated, “Focusing on just being rather than doing helped me connect with the space between my thoughts and it helped me relax”. Participant # 2 stated,

During this exercise I think it was much better than any previous meditation session. Towards the end I think I was really able to contemplate and experience the relational nature of the mind. I was able to experience the sense of simply being alive.

Participant #4 stated,

Once I found myself in my natural state, I started to reflect on how my existence has affected all the people in my life in some way or another. I thought about how all the things or situations I’ve lived has brought me to where I am now.

#### *Phenomenological Data: Behavioural Exercises*

Phenomenological data from behavioural exercises indicated that, with practice, participants were able to increasingly access nondual consciousness and apply the understanding of nonduality in real-life situations. After session 1, participant #4 stated, “I was able to mentally remain in the moment and solve the problem in front of me. I did not let the anxiety of ‘what if’s’ control my mind and I was able to come out of this situation in a positive emotional and mental state”. Participant #10 noted,

I might describe clearing my mind between thoughts as having a ‘healthy’ effect on my mental state. On days when I practised, I found myself able to think clearly with more ease . . . I found it to act as a ‘reset’ for my emotions.

After session 3, participant #1 stated, “I am more accepting of where I am as I understand that I am on my own journey of growth”. Participant #3 reported, “All the things from my past make me who I am right now . . . It gives a good feeling of having a reason for existing in this world”.

Participant #4 stated, “As I experienced my natural state and started to contemplate events, I did not feel the sadness that would usually consume my mind. Instead, I explored how everything was inter-related”. Participant # 7 reported,

I found it much easier to experience effortless effort than I have in the past. I was able to get there almost instantly without really having to think about what it meant or what to do. It's become more natural and obvious, which is great. In general, I feel more at ease most of the time. I feel more capable of just existing in the moment, and less like I'm constantly worried about what's going to happen next.

With continued experiential and behavioural practice, participants reported feeling more hopeful, accepting, and calm, as well as more optimistic, connected, grateful and happy. Stressful moments were increasingly viewed as temporary, which allowed for more peaceful moments. Participants were able to apply the knowledge of the emerging and relational nature of the mind by realizing the natural process of growth and development and by letting go of the ego-based drive for control.

### **Results During the COVID-19 Pandemic**

The study was repeated during the COVID -19 pandemic in February-March 2020, with a group of 13 graduate students at the University of Toronto, Canada. Following the same 4-week protocol, the methodology led to a reduction in the average depression score from 14 (mild depression) to 10 (normal), and reduction in average anxiety from 11 (moderate anxiety) to 7 (mild).

### **Discussion**

The study results indicated that increasing awareness of nondual consciousness can contribute to a significant reduction in symptoms of depression and anxiety and the need for medical treatment. Continued reduction in symptoms at 30-days and 6-months indicated that increasing awareness of nondual consciousness can serve to create an upward spiral and reverse symptoms of depression and anxiety by tapping into the natural healing processes of the human system.

Depression score results showed that, while the methodology was effective in reducing symptoms for most participants, those with symptoms at the level of borderline clinical depression benefitted the most. While significantly reducing symptoms across all levels of depression, the methodology was not as effective for those experiencing moderate to severe depression. This indicated that the methodology could be most suitable for prevention and early intervention, while those experiencing higher levels of depression may require additional treatment.

The study results also indicated that increasing awareness of nondual consciousness can contribute to a reduction of feeling overwhelmed and worried. It can also improve confidence, clarity, and sense of interconnectedness, as well as creative expression, communication, and a sense of purpose and agency. Increasing awareness of nondual consciousness can have a positive effect on all aspects of wellbeing, including physical, mental, emotional, and spiritual, while having no adverse effects.

The findings indicated that while young adults were not familiar with concepts such as nonduality, the natural state, and the emerging and relational nature of the mind, they found the information interesting and inspirational, and considered the knowledge about these concepts helpful. The findings indicated that the mind is not usually understood

by young adults as having a relational quality, and that this could be essential to a deeper understanding of mental health and wellbeing.

Considering that, on average, participants experienced symptoms of anxiety and depression for 5.4 years before the study, the time investment of four 1-hr sessions over 4 weeks was relatively small for a significant reduction in symptoms and increase in the sense of physical, mental, emotional, and spiritual wellbeing. Feedback on the effects on wellbeing indicated that the educational program and experiential exercises could serve to promote a consistent practice in daily life. The findings showed that increased awareness of nondual consciousness can be useful in providing young adults with fundamental knowledge about the nature of the mind and the nature of reality, thereby contributing to more sustainable mental wellbeing.

The results from the repeat of the study during the COVID-19 pandemic indicated that increasing awareness of nondual consciousness can significantly reduce symptoms of depression and anxiety even during times of high uncertainty and change.

### **Conclusion**

Increasing awareness of nondual consciousness at the conceptual, experiential, and behavioural levels can potentially be useful in providing a prevention-oriented framework for mental health. While young adults are mostly unfamiliar with such concepts, they can benefit from them while navigating uncertainty and challenges during a time of transition into adulthood, and throughout life. The methodology can be effective in helping young adults establish a continuous practice and promoting open discussion about ways to develop the mind, thereby putting the agency for mental health into the hands of individuals rather than institutions.

The methodology can be used to help prevent common mental disorders during and after the COVID-19 pandemic and improve mental wellbeing of those most affected in industries such as healthcare, hospitality, tourism, and entertainment.

Further research is needed to explore the effects of increasing awareness of nondual consciousness on depression and anxiety in young adults, as well as the general population. Introducing such methodologies into the mental health field would not compete with other healing modalities such as medication or therapy. Instead, it could provide an underlying framework for understanding the mind in a more integrated and sustainable way, and contribute to prevention of depression and anxiety, increased mental health literacy, and reduction of stigma. Ultimately, understanding the mind from a more integral perspective can help young generations create new solutions to current problems, providing an increased ability to handle future challenges in a more sustainable and humane way.

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