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# Table of Contents

**From the Editor:**
*Chaz Rich* ................................................................. vii

**The Irony of Empiricism in the Psychology of Religion**  
*Alex Calder* .......................................................... 1

**Effects of Divorce on Children: The Importance of Intervention**  
*Katherine Donahey* .................................................... 21

**Negative Effects of Divorce and Possible Intervention Program Development and Improvement**  
*Mariah Eaton* ............................................................. 34

**Measuring Attitudes Toward the Use of Technology in Relationships**  
*Jacob Johnston and Marc Waddell* .................................. 49

**Preventing Eating Disorders by Promoting Media Literacy and Rejecting Harmful Dieting Based Mentalities**  
*Mckayla Kagie* ............................................................. 64

**Dialectical Behavior Therapy as a Possible Treatment Modality for Schizophrenia**  
*Cheyenne Kemp* ............................................................ 81

**Moving On: An Investigation of Dance Movement Therapy in PTSD Treatment**  
*Sydney Parker* ............................................................. 100

**Social Media Use Among College Students and its Contribution to Depression**  
*Chaz Anthony Rich* ........................................................... 112
et al.: 13.1
From the Editor:

I am very proud and honored to present this semester’s newest issue of Intuition. The journal is continually undergoing many changes and improvements, namely operating, editing, and publishing now on Intuition’s new website scholarsarchive.byu.edu/intuition. Past publications and current publications are available for download and viewing online for interested persons; readership now spans the entire world! Currently, the Intuition staff and I are also working to publish three issues each year and possibly even more to allow more opportunities for publication to students.

I would like to sincerely thank each and every one of the editorial staff members who gave their time to work on the journal. We had some students who dedicated their time to work on the journal for their capstone credit, and we had others who simply wanted the experience and donated their free time to help with the journal as volunteers. Their careful, consistent, and reliable efforts have made this current publication possible.

I would also like to thank the faculty who donated their time and effort to the journal. We realize that the faculty members are very busy with their teaching, research, and personal lives. We appreciate the time they set apart to give authors of the manuscripts didactic and valuable feedback.

I especially would like to express my personal thanks to Dr. Harold Miller, who is the advisor for the journal. His support, insight, and care have helped us to improve and progress the journal far beyond what we could have done by ourselves.

I hope you enjoy this issue of Intuition!

Chaz Rich
Editor-in-Chief
et al.: 13.1
The Irony of Empiricism in the Psychology of Religion

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Abstract

Current researchers are considering the relevant new knowledge that psychological studies in the past 100 years have produced concerning the psychology of religion. Experimental methods typically employed have the aim of producing value-neutral scientific results, especially in the arena of religion. However, methods are inextricably tied to assumptions, since how a person investigates something reflects their understanding or belief about that thing (Hood, 2013). Those methods present in psychology today take after the natural sciences in an effort to arrogate psychology to the status of a hard science. Naturalist methods are also based on naturalist presuppositions about the nature of the world; nothing exists outside of physical matter—an assumption that provides no room for a belief in God (Slife & Reber, 2009). This allows researchers a greatly limited perspective from which to approach the psychological study of religion. An argument is made for a methodological pluralism—one that begins with the assumptions of the hermeneutic tradition. Hermeneutics interpret meaning in lived experience and take the word of the individual to be a faithful account (Belzen & Hood, 2006). These assumptions are based on relationships, trust, and context, each of which will provide psychology with a more holistic understanding of religious phenomena.

Keywords: Philosophy, Religion, Spirituality, Hermeneutics, Empiricism
The Irony of Empiricism in the Psychology of Religion

Psychology as a science emerged from the laboratory of Wilhelm Wundt, one of the founding fathers of academic and experimental psychology (Fancher & Rutherford, 2012). Wundt expressed great interest in the psychology of religion; he disagreed, however, with his contemporaries on which methods should be used in a scientific study of religion (Belzen, 2005). To Wundt, experimental psychology was most useful to study natural phenomenon in physiological psychology; this method could not adequately account for the higher processes of human life, like religion, art, literature, or culture, which would require a more sophisticated and contextually rich methodology to ascertain understanding (Belzen, 2005; Toulmin & Leary, 1985). William James, another founding father of psychology and contemporary of Wundt, also called for a broader approach to psychology. James (1890) said, “It is better . . . to let the science be as vague as its subject . . . if by so doing we can throw any light on the main business at hand” (p. 13). In other words, if the subject matter cannot be reduced to numerical quantities and physical matter, the method of inquiry should not do so (Gadamer, 1986; Heidegger, 1962). Taking the psychology of religion as the main business at hand, and following this spirit of inquiry, psychological scientists should gladly welcome anything that increases their scientific understanding of religion, even when not of physical or numerical origin.

Contemporary psychology is often defined as the scientific study of behavior and cognition (Myers & Dewall, 2015). Human behavior and cognition are typically viewed as originating from solely natural causes, a proposition that serves as the grounds to question the importance and existence of a spiritual reality (Gantt & Williams, 2008; Slife & Reber, 2009). Religion and spirituality are seen as specific and complex manifestations of natural laws. Other pioneers of psychology (such as Freud and the psychoanalysts; Rogers and the person-centered psychologists; Watson, Skinner, and the behaviorists; evolutionary psychologists) provide “theories and methods of psychology that are grounded firmly in a philosophy of naturalism” (Gantt & Williams, 2008, p. 3). These naturalist
theories provide an account of the world that “is incapable of allowing any phenomenon (religious or otherwise) to be other than the merely natural outcome” of natural laws and causal forces (p. 3). Things occurring in nature are of physical matter; they can be seen, they can be measured. They can be explained in natural terms. According to these theories, belief in God and one’s relationship to Him are explained as manifestations of the tyrannical superego, the necessary outcome of one’s reinforcement history, a tool for self-actualization, or the necessary result of natural selection. Additionally, these explanations purport to explain human behavior and cognition in their entirety—with strict parsimony and without alternate explanations (Gantt, Lindstrom, & Williams, 2017). Whatever the explanation, it is not given that God is real, or that His reality is of consequence to any human being individually or collectively. It is easy to see why psychology’s theories and explanations of human life may not sit well with religious people.

The critique of the psychology of religion set forth in this article is not intended to discredit the sincere and honest attempts of many scholars to “provide additional knowledge about religion(s), from a psychological perspective” (Belzen, 2005, p. 829). Rather, the objective is to bring to light hidden assumptions embedded in the scientific method that are not often recognized or understood and propose a viable alternative methodology (Gantt & Williams, 2008; Slife & Reber, 2009). Indeed, “The certainty achieved by the scientific method is no guarantee of truth” (Moran, 2004, p. 280; Gadamer, 1986). An alternative approach to understand the phenomenon of religious and spiritual experience is hermeneutics. In contrast to assuming natural objects and the necessary causes of their behavior, a hermeneutical approach assumes that our existence in and interaction with the world is wrapped up in direct, personal experience (Heidegger, 1962). A fundamental assumption of hermeneutics is that we understand the world and our relation to it through concerned and engaged living. James (1907) spoke to this point when he said, “The truth of an idea is not a stagnant property inherent in it. Truth happens to an idea. It becomes true, is made true by events. Its verity is in fact an event, a process: the
process namely of its verifying itself, its veri-*fication*. Its validity is the process of its valid-*ation*” (p. 201; italics in the original). In other words, people come to know truths about the world and their place in it by living in it, not just through empirical data and statistical analyses. In opposition to the view that treats religious experiences as objects to be observed and measured, hermeneutics centers on meaningful relationships and experience as lived (Slife & Christensen, 2013). In this orientation, religion and religious experience are seen holistically. Religious experiences are not objects that can be picked up, or manipulated and observed from different angles like a rock. Meanings of religious experience are akin to the ideas and emotions conveyed in conversation that transcend the actual words spoken: the words cannot be taken individually in isolation, but must be understood in context as they, together, form a web of meaning (Slife & Christensen, 2013; Slife & Whoolery, 2006). Likewise, religion and spiritual experiences are more than mere isolated variables to be manipulated or controlled for to predict an experimental outcome. When treated as a variable, religion is seen as a subjective bias through which people see the world, one that potentially distorts what is “objectively true.”

From a hermeneutic perspective, religious belief does not distort a supposed objective, bias free reality. Rather, religious belief is part of what constitutes the “real” world and how to understand it; it is world-view. People are able to make meaning through the web of meaningful connections (related assumptions) in their lives, such as their beliefs, personal history, fears, goals, and aspirations. It is through these assumptions and connections that people know how to make sense of and navigate their relationships, careers, etc. This is not true of religious people alone; scientists also become able to navigate and make sense of their world through the assumptions they make about it. In fact, for some (if not many) scientists, science has become their religion (Williams & Robinson, 2015).

If science and religion are both based on assumptions about the world—ideas that cannot be proven but must be believed—then it is not inherently clear one worldview is better than the other. Yet, psychological scientists claim they hold special knowledge...
about human nature that is privileged because it is objective, not influenced by ideologies or personal ambition (Geher, 2006). This idea paints the picture that psychological scientists stand on a vantage point from which they view reality and are obligated to promulgate knowledge of that reality (Slife & Wendt, 2006). When seen this way—by lay people and scientists alike—it is implicitly communicated and understood that everyone else must therefore turn to psychologists to understand themselves and the world (Slife & Wendt, 2006). This position relegates religious worldviews to second-class knowledge at best, and irrelevant or delusional at worst (Gantt & Melling, 2006). While much theorizing in the psychology of religion currently reduces spiritual phenomena to purely material explanations that undermine religious experience, hermeneutic phenomenology provides a way for psychologists of religion to study spiritual phenomenon in a way that preserves the non-naturalistic, non-reductive, and holistic nature of such phenomena. Simply put, hermeneutic phenomenology provides a framework through which religion can be understood as a valid and meaningful worldview.

Naturalistic Psychology of Religion

Psychological scientists base their methods and research on a philosophy of science known as *logical positivism*. Positivist philosophy of science holds that opinions, presuppositions, statements, ideas, and the like have no place in science because they are subjective, and therefore have no real meaning without empirical evidence (Bickhard, 2001). In the positivist mind, knowledge must be verified through tangible measurements of publicly observable things (Kutney, 2006). Thus, positivist thought endeavors to produce an objective, value-free science that is entirely void of subjective presuppositions (Bickhard, 2001). Due to its self-reported claim of a science free of assumptions, it has become difficult for the average scientist (or consumer of scientific knowledge) to identify the presupposed notions underlying positivist science (Bickard, 2001). Despite the seductive idea of ascertaining a value-free, objective, and universal knowledge.
of the world, the very notion is itself advancing a philosophical perspective, which is not verifiable through empirical and objective data. Science from this perspective is based on at least two problematic assumptions: material reductionism and objectivism (Clegg, 2016; Gantt & Williams, 2008).

Evolutionary psychology, for example, avails itself of logical positivist methods and has risen to prominence in psychology, especially serving as the grounds for explaining many psychological phenomena. Theories of religion taken from evolutionary psychology will illustrate positivist assumptions and the problem of their implications for religious people. To emphasize the prevalence of evolutionary theory, Gallup poll results from 2014 reported that 50% of Americans believe that humans evolved from less advanced forms of life. Moreover, a recent database search for “evolution and psychology” (limited to the field of psychology) revealed that in 1990 only 493 scholarly articles were published in the Scopus database compared to 4,071 in 2016 (see Figure 1; Figure 2; Figure 3). Theories set forth in evolutionary psychology purvey reductive naturalistic assumptions (Gantt & Williams, 2008). As people continue to look to psychologists for understanding of human nature, these provocative assumptions will unknowingly pervade the thought of those who accept such theories (Wiker, 2002; Wilkens & Sanford, 2009). In what follows, current examples will cast light onto the implicit assumptions in theories of religious behavior and cognition, namely, materialism and objectivism.

**Problem of Material Reductionism and Agency**

Material reductionism (or, simply, materialism) underlies all of evolutionary theory and logical positivism (Clegg, 2016; Costa & Shimp, 2011; Wiker, 2002). Material reductionism is the assumption that all that is real—including the fundamental make-up of humans and all human experience—is physical matter, the movement of which is governed by universal, natural laws; anything else is unobservable and consequently unknowable (Gantt, Wages, & Thayne, 2014). All behavioral and cognitive phenomena, religious or otherwise, are explainable by these natural
laws (Gantt & Williams, 2008). Natural law is considered universal and incontrovertible, like gravity (Gantt, Wages, & Thayne, 2014). Gravity pulls all objects on earth toward the center of the earth. We accept this by our experience and by reasoning through physics. Gravity has no personal motive or purpose; it just does what it does without concern for human beings. Now, we infer that the purpose of gravity is to keep us on the earth, but gravity does not wake up every morning deciding to help us out. It simply is what it is, does what it does, impersonally, frigidly (E. Gantt, personal communication, September 20, 2017). All natural laws are of the same character: cold, impersonal, meaningless. If human behavior and cognition can be explained by such natural laws, then humans must not have agency, the ability to make meaningful decisions. Natural law is causal, necessarily determining behavioral and cognitive outcomes (Gantt & Williams, 2008). Thus, material reductionism undermines two crucial aspects of religious worldviews and religious experiences: spiritual reality and agency.

To illustrate, evolutionary psychologists hold that cognitive mechanisms extant in humans were evolutionarily adaptive in the eons past. One well-considered self-preservation mechanism is the agency detector (Barrett, 2000). When a stimulus is perceived (such as hearing a rustling in the bushes), it triggers a cognitive response in the organism that assumes the presence of an agent (a living being) that could potentially threaten the individual. Research shows that this mechanism is so hyperactive that moving dots or geometric shapes on a computer screen cause people to assume another person is altering the patterns or shapes, and this is seen in infants and adults alike (Bloom & Veres, 1999; Gergely & Csibra, 2003; Heider & Simmel, 1944). Atran and Norenzayan (2004) argue that agency detection is increased in uncertain circumstances (p. 720). Under these conditions (e.g., the death of a loved one, unemployment, or any number of stressors), humans are more likely to assume that such circumstances are intentional or result from the will of a supernatural agent (Bering, 2006). These concepts are counterintuitive and nonsensical to the evolutionary psychologist, precisely because nothing, including God, exists
beyond the physical matter that constitutes the world (Atran & Norenzayan, 2004). Events in life, good and bad, occur because of natural law, not because an omnipotent, omniscient God willed it so. However, a reductionist worldview necessitates an explanation of this phenomenon in terms of physical matter. Specifically, some sensory stimulus—be it the sound of rustling leaves or the redistribution of neurotransmitters in the “god spot” of the brain—fall on, or make contact with, an individual (such as their ears or brain) (Atran & Norenzayan, 2004; Barrett, 2000). In a manner so predictable that it is deemed universal law, this collision of physical particles causes a person to feel as though some other person is responsible for the event.

Excluded from this theory is the possibility of a reality wherein an omnipotent God actually is actively involved in the world and in individual lives (Gantt & Williams, 2008; Gantt, Wages, & Thayne, 2014). Contrary to naturalistic accounts of reality, the world’s religious traditions all orient their lives toward a spiritual reality that transcends the physical world (Richards & Bergin, 2005). Further, explaining in terms of adaptive evolutionary mechanisms turns religion into some sort of survival tactic, the end being to preserve oneself long enough to reproduce and pass along their genetic code (Fancher, 2012; Wiker, 2002). Indeed, in this explanation, the brain and the agency detector mechanism are sufficient to have a religious or spiritual experience; the experience itself is contained within the person, a stagnant and inherent property of an object, like the density of granite. Religious experience, in this light, does not relate to or depend on the existence of anything outside the person, be it God or any other spiritual force.

**Problem of Objectivism for a Spiritual Reality**

That people and their constitutive properties are self-contained entities is an idea that follows from objectivism. Objectivism is the assumption that objects exist outside of the subjective, individual mind (Clegg, 2016). Generally, the existence of an object is independent of anything or anyone else. A rock simply
is; it depends not on anything to exist except the past (causal) material conditions and (causal) natural forces that formed it. Knowledge of an object can be obtained by carefully controlling the surrounding conditions in order to isolate the object and identify any causal forces acting on it, which give rise to its existence (Slife & Christensen, 2013). Knowledge of objects, such as religious sentiments, is uncertain until enough evidence has been gathered in support of or against its existence (Slife & Whoolery, 2006). Indeed, these are the very objects upon which the aforementioned natural laws exert their impersonal force (Clegg, 2016; Slife & Christensen, 2013). In the study mentioned previously, faith seemed to be the object of study; the question of why people tend to attribute the reason for an event to another person (Barrett, 2000). Although faith is not directly observable, it is assumed that this unseen principle acts in a predictable, law-like manner, giving rise to observable behaviors; in turn, these behaviors can be observed and measured in a manner appropriate to gather evidence for supporting or rejecting a theory (Morling, 2015). Following through with this assumption leads to viewing religious experiences as detached, impersonal objects to be manipulated, observed, measured, and, ultimately, explained away.

Approaching religious phenomena in this way robs the individual’s experiences of the context and rich historical background of religious belief. This approach distorts an understanding of the meaning of the phenomenon itself. For example, a rock is a rock regardless of the context, but its meaning could possibly be a fire starter or a weapon, depending on the situation and the person who interacts with it (Slife & Christensen, 2013). Without context and meaning, religious experience becomes no more significant than a sneeze, being the result of some underlying natural processes and causal laws. As such, spirituality would be biological or naturally selective mechanisms to ensure reproduction, rather than a path to healing, significant relationships, enlightenment, or salvation. Now, whether an individual believes solely in a material reality or in a spiritual one is a matter of choice. However, believing in one does not obviate
the other. Psychological scientists can do more to realize that their reasoning is based on faith in science (Gantt & Melling, 2009). If the assumptions they accept cannot be empirically verified—and they cannot—then their explanations are no more real than religion is from their perspective.

“Simply put, how we seek to know assumes what we believe to be real” (p. 79). Thus, by understanding which methods a researcher employs, the careful thinker can learn what that researcher believes to be real. When researchers seek knowledge through methods tailored to discover material objects, they reveal their belief that a spiritual reality is either unimportant or nonexistent. Ironically, while evolutionary psychologists are making their claims, which denounce religion, it is generally accepted in the scientific community that the positivist assumptions, upon which the methods used to reach those conclusions are based, are outdated and “confounding and nonsensical” (Clegg, 2016, p. 199). Thereby, evolutionary psychologists hold to a religious-type belief that religion is outdated and nonsensical (Midgley, 2002).

Hermeneutics: A Meaningful, Interpretive Approach to Religion

In contrast to the naturalism underlying the scientific method, hermeneutics focuses on understanding and articulating human meaning and relationship in the context of historically and culturally situated lived-experience (Slife & Christensen, 2013). Combined with experimental methods of research, hermeneutic interpretation of religion can provide a more complete, robust, and rigorous psychology of religion (Belzen, 2005; Gantt & Melling, 2009). The scope of this article does not allow sufficient space to extol all the virtues of a hermeneutic approach in the psychology of religion. However, a brief coverage of what the hermeneutic assumptions are, and some proposed methodological applications should provide the reader with a sufficient understanding of the hermeneutic approach. Specific mention will be made of historicity, interpretative relationships, meaning and lived experience, and the individuality of general experiences.
Hermeneutics is an interpretive approach focusing on meaningful relationships between people and their direct experience with the world (Slife & Christensen, 2013). Understanding an experience begins with some pre-understanding of that experience—a prejudice in the literal meaning of the word, as in pre-judgement. Prejudices are based on a web of beliefs, traditions, and prior experience. As mentioned earlier, “Every seeking gets guided beforehand by what is sought” (Heidegger, 1962). In fact, it is not possible to form an intelligent question (like a research question) without first having some understanding of the topic, without an idea of what one hopes to find, questions arise from and are formed by one’s preconceptions (Gadamer, 1977).

Experimental psychology asserts that the prior understanding takes the form of a scientific theory, which will or won’t be supported by data (Morling, 2015; Myers & Dewall, 2015). But where do the theories come from? They come from a person, or people, whose understanding is constituted by a web of previous experiences and judgements about the topic (Moran, 2004). A question cannot be asked with zero knowledge of something (Heidegger, 1962). Likewise, a theory cannot originate without prejudices or pre-understanding. Scientific theories are formed from an intricate web of pre-experience (Belzen & Hood, 2006; Gadamer, 1986).

Experimental methods aim to reduce subjectivity by confirming or rejecting theories based on objective data and intersubjective analysis and opinion. The intersubjective review process is based on the claim that greater numbers of reviewers will help check for bias and personal opinions; personal experience is dubbed uncertain and non-confirmable (Myers & Dewall, 2015; Morling, 2015). In hermeneutics one assumes “subjective” ideas are confirmed in personal experience with objective reality (Belzen, 2005; Moran, 2004). Understanding is not something that occurs only in one’s head, as it were: a person obtains understanding as he or she engages with the objective world in meaningful living (Guignon, 2002). One’s prejudices inevitably give rise to one’s investigation, interpretation, and understanding of a phenomenon. Prejudices do not, however, inevitably distort the truth revealed in experience.
(Gadamer, 1977). Rather than divorcing oneself of prejudices, as in experimental psychology, hermeneutic researchers acknowledge and clarify their prejudices at the outset and throughout the research process (Laverty, 2003). Gadamer (1986) stated, “It is the tyranny of hidden prejudices which makes us deaf to what speaks to us in tradition” (p. 270). Ironically, the bias of overconfidence deemed a heresy in experimental psychology has come to be a leading assumption of the scientific method, constituting a willing deafness to intersubjective bias.

In researching a topic, one’s understanding and prejudice are continually refined as additional light shines through the investigation of the experience. This process, which gives rise to new understanding, is the process of interpreting meaning. Slife and Whoolery (2006) asserted:

A crucial aspect of many religious topics is their meaning, and meaning does not fall on one’s retina. The storyline or meaning of a book... is not the printed word we observe; it is the nonobserved experience of the relations among the printed words (not to mention the interpreter) (p. 223).

Meaning is thus inherently and inextricable contextual in nature. Thus, complete understanding does not come through an abstraction of universal theory from an experience (Gantt, Lindstrom, & Williams, 2017; Slife & Reber, 2005). Rather, understanding comes by remaining as close to the context within which an individual experiences (Gantt, Lindstrom, & Williams, 2017; Slife & Christensen, 2013). In this sense, what is sought is the meaning intrinsic to all experience—what is fundamentally necessary for an experience of a certain kind to be such (Moran, 2004). Following an experience, understanding continues to be developed as one’s pre-understanding meets the objective reality of the experience (Belzen & Hood, 2006; Gadamer, 1986). For instance, a Christian, having lost a job, would experience and understand that loss as the will of an omniscient, omnipresent God, even if other people might offer alternate explanations. Whereas an evolutionary psychologist views this as a coping mechanism,
the Christian views this situation as a venue to increase trust and belief in divine will (Richards & Bergin, 2005). Rather than being a survival tactic to propagate genes in the gene pool, the end goal of the Christian is to be humble and receive salvation from God (Gantt, Wages, & Thayne, 2014). Evolutionary psychologists might acknowledge that Christians view the world as such, but ultimately the Christian perspective is unnecessary and fruitless because even it is brought under the vastly expansive umbrella of natural selection theory (Geher, 2006). Seen in this way, religious beliefs are “simply misguided” because, according to evolutionary psychologists, they fail to take into account the more fundamental—and more factual—evolutionary history of our species (Geher, 2006, p. 116). A hermeneutic researcher would approach the study of the phenomenon with his or her own assumptions and opinions on the matter made clear and keep an open mind to understand from the perspective of the experiencer (Hein & Austin, 2001; Laverty, 2003). Drawing on the description of the experiencer as expressed in language, the researcher brings to light the fundamental essences of the experience by carefully and methodically studying the description (Belzen & Hood, 2006). Using the description as a text, the researcher engages in an interpretive dialogue, through which his or her understanding of the phenomenon is corrected, by the evidence of the experience given, in order to become true and faithful to the experience as lived by the experiencer.

Scientists attempt something similar, but the scientific method is incapable of providing such a complete and meaningful understanding. On the grounds of objectivism, they assume the need of operational definitions to concretely measure unseen hypothetical constructs. On the grounds of reductionism they assume operational definitions are the ultimately real manifestations of the unobservable construct (Bickhard, 2001; Clegg, 2016; Morling, 2015). Measurement of these operationalized constructs can take place using EEGs, behavioral observations, and surveys, for example. Research thus carried out produces a “certainty” of quantifiable data rather than the “subjective” and “dubious” expression of experience through language. In
the scientific method, even qualitative data must be coded and standardized somehow (Morling, 2015). Unfortunately, these data and analyses only provide a partial account, missing the fundamental essence of religious experiences that provide depth, color, and meaning. Results generated by the scientific method do constitute integral components of a complete understanding of religious phenomena (Gantt & Melling, 2009). Deprived of the hermeneutic interpretive understanding, the phenomenon becomes cold and lifeless like a cadaver, devoid of personality and animation (Gantt & Williams, 2008).

**Conclusion**

Empirical methods alone have yet to provide an adequate understanding of religion from a psychological perspective (Gantt & Williams, 2008). Experimental psychology lauds the merits of its own methods, relishing in the fallibility of human reason to perceive and understand experiences as experienced. Supposed pure, objective knowledge is discovered and promulgated through a reliable method of objective inquiry and empirical validation. In the psychology of religion, this lauding has lent itself to much ado about relatively nothing. Experimental methods used to study religion from a psychological perspective have provided next to no additional insight for the past century (Belzen, 2005; Koenig, 2008). Although psychological science is purported to be free of biases, the results of scientific inquiry have produced inferences that pass as bias-free, yet are laden with presuppositions (Gadamer, 1986; Heidegger, 1962; Slife & Reber, 2009; Slife & Whoolery, 2006). This has resulted in scientific theories that outwardly appear to be value-free, but on the inside deduce that God is not real (or is merely a fantasy) and that religious experiences are simply blips in cognitive processes, which are resultant from evolution (Atran & Norenzayan, 2004; Bering, 2006). Methods through which the data are collected to support these claims are theoretically untouchable because of their claim to be free of all assumptions (Bickhard, 2001; Clegg, 2016; Toulmin & Leary, 1985). However, while the rest of the sciences move beyond these positivist assumptions, psychologists
demonstrate a religious zeal for a philosophy of science and methods that are outdated and less recognized by the natural sciences.

Far from devaluing quantitative methods, hermeneutics allows for the broader methodology called for by Wundt, James, and others. Efforts have been made recently to integrate quantitative and qualitative methods. It would not be prudent to disregard all of the work that has heretofore been done (Kutney, 2006). Instead, hermeneutics serves to enhance and enrich the vast knowledge that has been obtained to this point and, when needed, reevaluate and reformulate theories and principles of psychology based on the new insights obtained through interpretive methods (Slife & Christensen, 2013). This plurality of methods would be able to provide meaningful answers to what religion is and how religious phenomena occur and influence the psyche.

Assumptions being inescapable, psychology must begin on an even playing field with religion. A hermeneutic (interpretive) approach would provide such a playing field. Far from trying to rid scientific inquiry of biases, hermeneutic researchers make all relevant biases clear from the beginning and clarify them throughout the research (Hein & Austin, 2001; Laverty, 2003). Further, people are taken at their word, and their accounts of personal experiences are taken as the data of the research. The historical context of an individual partly accounts for the meaning that one interprets in their life experience. The end goal of all hermeneutics is to discover meaning that people experience in their lives (Slife & Christensen, 2013). An interpretive approach to systematically studying religious phenomena would provide a deep, rich understanding of what constitutes particular religious phenomena and what is unique about different religious people and cultures while giving full credibility to their beliefs. Although parts of the whole understanding may be generalizable across religions, the result would highlight the uniqueness and rich culture of individual religions and individuals within religions (Belzen & Hood, 2006). Understanding in this regard should be of particular interest to psychologists and consumers of psychological research in
a world where individuals and their personal beliefs are of utmost importance.

Although it is beyond the scope of this paper to address the implications of these ideas outside the psychology of religion, it is possible that similar methodological issues are affecting psychology in general. These findings suggest that the same reconsiderations may be called for in other subfields of psychology such as personality, marriage and family, and psychological disorders. Psychological scientists should sincerely consider the philosophical basis and implications of the work being done in their respective fields. Their critical assessment could lead to the discovery of still more meaningful theories throughout psychology.

References


Figure 1. Results of a database search for “evolution and psychology” limited to journal articles published between 1986 and 2016 within the field of psychology. The mean number of studies published from 1986-2010 and from 2011-2016 are represented by the lower and upper horizontal lines respectively.

Figure 2. Results of a database search for “evolution and ‘psychology of religion’” limited to journal articles published between 1986 and 2016 within the field of psychology. The mean number of studies published from 1986-2010 and from 2011-2016 are represented by the lower and upper horizontal lines respectively.
Figure 3. Results of a database search for “evolution and psychology and religion” limited to journal articles published between 1986 and 2016 within the field of psychology. The mean number of studies published from 1986-2010 and from 2011-2016 are represented by the lower and upper horizontal lines respectively.
Effects of Divorce on Children: The Importance of Intervention

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Abstract

When parents divorce, their children are affected in significant ways. Many of the consequences of marital dissolution may adversely affect children’s success in their future romantic relationships, but fortunately this downward spiral can be mitigated through deliberate parental efforts (Cui & Fincham, 2010; Shulman, Zlotnik, Shachar-Shapira, Conolly, & Bohr, 2012). One remedy to counteract this trend is conscientious coparenting—continuing to work together despite altered family dynamics, since such effort positively impacts the children’s future relationships, specifically daughters’ future intimacy (Haaz, Kneavel, & Browning, 2014; Shulman et al., 2012). Another significant factor in children’s future marital success is the amount of conflict between their parents. High-conflict parental relationships have been linked to children’s difficulty in forming their own healthy relationships (Cui & Fincham, 2010; Gager, Yabiku, & Linver, 2016; Sprague & Kinney, 1997). However, when the amount of conflict between parents decreases following divorce, children fare significantly better (Gager et al., 2016). If divorced parents have an increased awareness of how their behavior and relationship affect their children, they may take measures towards more cooperation and less conflict, thus increasing their children’s future chance for success in romantic relationships.

Keywords: divorce, children, coparenting, conflict
Effects of Divorce on Children: The Importance of Intervention

Six months after Zachary and Pauline Robison divorced, they noticed their children acting out. Eight-year-old Tom returned from his father’s house noticeably irritable, and 6-year-old Sarah did not want to go to her father’s house at all. Pauline decided to pursue family therapy, to which Zachary reluctantly agreed. The tense atmosphere of the first therapy session dissipated over time as each person eventually shared their feelings and concerns. By the end of their family’s postdivorce treatment, Pauline and Zachary understood the importance of parenting together for the good of their children, despite their legal and physical separation. All family members sat on the same couch during therapy, comfortable with each other and their redefined relationships (adapted from Wylder, 1982).

Following divorce, children experience many difficulties which may linger into adulthood if left unaddressed, adversely affecting their success in intimate relationships (Cui & Fincham, 2010; Haaz, Kneavel, & Browning, 2014; Shulman, Zlotnik, Shachar-Shapira, Conolly, & Bohr, 2012). These potential long-term consequences reveal the importance of taking remedial action following divorce—now a common occurrence in modern society. Perhaps not surprisingly, Amato (1994) observed, “The high rate of marital dissolution means that about 40% of children will experience a parental divorce prior to the age of 16” (p. 143). According to the American Psychological Association (2017), roughly half of United States marriages end in divorce, and the likelihood is even greater for second and subsequent marriages. The prevalence of divorce demands an investigation of its effects and their remedies to prevent the tide of broken families from surging into the next generation.

Studies on the effects of divorce on children reveal several common struggles. For example, the experience of parental divorce often conveys negative messages about marriage, family, and relationships, creating mental constructs that manifest themselves in children’s difficulty forming relationships in the future (Cui & Fincham, 2010; Weigel, 2007). Another issue frequently faced
Effects of Divorce on Children

by children of divorce is an increase in mental health challenges attributable to the decreased involvement of parents following divorce (Sandler, Wheeler, & Braver, 2013). These findings show that children are not immune to the effects of divorce and can suffer severe and lasting consequences if left untreated.

While the effects of divorce on children are often detrimental, many divorced parents are unaware of the importance of interventions for their children. Such measures aim to reduce the likelihood of suffering short- and long-term consequences from divorce. As noted by Amato (1994) in a summarization of several studies, research has found that although many children from divorced families adequately adjust without formal therapy, those who received professional help benefitted from it. Other studies have revealed that parent-centered programs, such as the New Beginnings Program, ameliorate the negative effects of divorce on children (Mahrer, Winslow, Wolchik, Tein, & Sandler, 2014; Velez, Wolchik, Tein, & Sandler, 2011). These resources and many others are available to families that experience divorce; however, many people who divorce may ignore the benefits of formal and informal intervention potentially to the detriment of their children’s wellbeing (Amato, 1994).

Although many studies have explored methods of helping children navigate divorce, a disconnect appears to exist between knowledge and application. An increase in the dissemination of findings regarding effective ways to combat the negative outcomes of divorce on children would likely motivate parents to take deliberate action to fight this trend. An active approach to reducing the occurrence of the harmful effects of divorce may aid affected children in being successful in the future. While therapy is a commonly acknowledged method for mitigating the effects of divorce and familial restructuring, there are other less formal strategies available, such as continuing to parent together and minimizing conflict.

With regard to the influence of parenting on children following divorce, coparenting is thought to be an effective way to alleviate the negative impacts on children, (Bastaits & Mortelmans,
PsycINFO Thesaurus (2017) defined coparenting as a term “used to signify parenting behavior and responsibility by two or more unmarried individuals” (para. 1). This teamwork approach to parenting can manifest itself in many different forms, but research has shown that following divorce, children whose mother and father work together to parent are most successful (Bastaits & Mortelmans, 2016). The decision to parent together following divorce may have significant positive effects on the future success of children.

Another key method for avoiding long-term consequences of divorce on children is the minimization of parental conflict. Prolonged exposure to such conflict leads to decreased future marital success for the children (Gager, Yabiku, & Linver, 2016). Additionally, as concluded by Cui and Fincham (2010), children who witness conflict between their parents later exhibit similar patterns of conflict in their own marriages. Efforts to avoid parental conflict facilitate greater marital success for children due, in part, to a decrease in learned conflict behaviors (Cui & Fincham, 2010). Efforts to avoid conflict and encourage coparenting may combat the transgenerational pattern of marital problems (Cui & Fincham, 2010; Shulman et al., 2012). Although dissolution of marriage is an increasingly common aspect of the modern family structure, the negative effects of divorce on children can be mediated through purposeful coparenting and a joint parental effort in order to minimize conflict because these deliberate interventions may facilitate the healthy formation of children’s future romantic relationships.

**Coparenting**

Following divorce, the traditional family structure changes and the ways in which parents interact are modified; therefore, the methods by which parents work together and interact with their children must be redefined within the new familial construct. Research has shown that following divorce, positive effects of good mothering (Shulman et al., 2012) and involved and active fathering emerge—especially for daughters (Haaz et al., 2014). Bastaits and
Mortelmans (2016) found that in such situations “both maternal and paternal parenting are important mediators in explaining the association between family structure and children’s well-being” (p. 2186). Continuing to parent together after divorce, though difficult, is important because failing to do so may put children at a long-term disadvantage.

**Benefits of Joint Effort**

The ways divorced individuals work together as parents are necessarily different than parents of intact families due to divorce’s alteration of the family structure. Beckmeyer, Coleman, and Ganong (2014) identified three types of coparenting: “cooperative and involved,” “moderately engaged,” and “infrequent but conflictual” (p. 531). The researchers determined these groups based on divorced parents’ ratings of several different aspects of their parenting. Parents who were involved scored high on communication and cooperation but low on conflict, the conflictual group scored low on communication and cooperation but high on conflict, and the moderately engaged group had scores that fell between the other two (Beckmeyer et al., 2014). Additional research conducted on the coparenting relationship identified a fourth type of coparenting, termed “undermining coparenting,” in which parents struggle to divide their responsibilities and undermine the authority of the other parent (Lamela, Figueiredo, Bastos, & Feinberg, 2016, p. 724). Although there are many approaches to coparenting, Shulman et al. (2012) found that when divorced parents continue to be involved and supportive of their children, the negative effects of divorce are often ameliorated. This description resembles the findings of Beckmeyer et al. (2014) that examined cooperative coparenting. Bastaits and Mortelmans (2016) also found that children who had supportive mothers and fathers following divorce fared best overall. The amalgamation of these studies’ findings shows the importance of high-quality parenting following divorce, including deliberate measures to cooperate and communicate. Without such efforts, higher conflict methods of parenting may arise and negatively affect the children involved.
Impact on Daughters’ Future Intimate Relationships

Several studies conducted to investigate the effects of divorce on children have focused specifically on daughters and the impact divorce has on their future marriages. Researchers have found that, in general, daughters of divorced parents often times have more difficulty in future intimate relationships than daughters from intact families; however, this effect can be lessened through involved parenting (Haaz et al., 2014; Mustonen, Huurre, Kiviruusu, & Aro, 2011; Shulman et al., 2012). Some studies propose an indirect connection between parenting and future relationship success (Beckmeyer et al., 2014; Mustonen et al., 2011), while others offer a more direct connection between the two (Haaz et al., 2014; Shulman et al., 2012). Whether directly or indirectly, parenting appears to play an important role in mediating the negative effects of divorce in daughters’ intimate relationships.

Fathers and daughters. Each parent plays a unique and important role in his or her daughter’s life. The contribution of a father includes serving as the primary male role model for his child, even after divorce. In fact, the father–daughter relationship may become more important after divorce as explained by the following insight from Haaz et al. (2014):

If [daughters] are able to form a close bond with their father where they are encouraged to share openly and feel supported, then they are likely to perceive that other relationships with men should be similar and seek out emotionally intimate relationships with men. (p. 172)

A girl’s relationship with her father informs her expectations of men in general, as well as her beliefs about what marriage can and should be. Similarly, Haaz et al. (2014) found that, in adult women whose parents divorced, the emotional intimacy of their marriage was strongly connected to the quality of their relationship with their father. Following divorce, a father’s influence on his daughter is substantial, and care should be taken to keep the father–daughter relationship healthy and open so that the daughter has an increased likelihood of forming healthy romantic relationships in the future.
Mothers and daughters. A good mother–daughter relationship following divorce also factors in to the daughter’s future success in intimate relationships. Shulman et al. (2012) found that following divorce, when girls have a relationship with their mother that is open and supportive, they often have higher-quality romantic relationships. Specifically, when mothers could clearly articulate their experiences in romantic relationships, their daughters had a greater chance of having healthy intimate relationships (Shulman et al., 2012). Following divorce, mothers should not shy away from discussions about their relationships and/or marriage with their daughters because, although those subjects may feel awkward, a home in which these are safe topics fosters children who are better adjusted in future romantic relationships (Shulman et al., 2012).

These studies on parenting convey a united message—each parent individually plays an important role in their children’s emotional development following divorce, and the greatest benefits occur when parents work together to coparent their children.

Importance of Minimizing Conflict

Since parental conflict often accompanies divorce, the effects of each issue ought to be examined separately. Studies have shown that witnessing parents’ marital conflict negatively affects children’s success in marriage and relationships (Cui & Fincham, 2010; Gager et al., 2016; Sprague & Kinney, 1997). Though it is normal for conflict to occur in life, parents should know how it affects their children so that they will be motivated to minimize conflict in their relationship. Fergusson, McLeod, and Horwood (2014) found that divorce itself is not the principal hindrance to children’s future success but rather that accompanying variables such as conflict play a primary role. Armed with this knowledge, an emphasis on conflict reduction following divorce should become a priority. If parents do not decrease the amount of conflict in their relationship following divorce, their children may be adversely affected.

Effects of Conflict on Children

The effects of parental conflict on children regarding divorce manifest themselves in a variety of ways. When exposed to
continual conflict, children struggle because they obtain “a more disturbing view of the world” (Franklin, Janoff-Bulman, & Roberts, 1990, p. 754), and this altered worldview may lead to difficulty in future relationships as the children learn and internalize their parents’ conflict styles (Cui & Fincham, 2010; Gager et al., 2016). Fortunately, research has shown that when divorces effectively decrease the amount of conflict between parents, the negative effects of the previously experienced conflict may be lessened; children in these situations have relationship success comparable to those from low-conflict families (Gager et al., 2016). When parents divorce, if they take measures to have less conflict in their relationship, they can counteract the negative effects on their children due to previous conflict.

Sprague and Kinney (1997) identified problems with trust and selflessness in future marital relationships as another frequent consequence of conflict on children (see Table 1). Interestingly, these effects were not found in children from intact families, indicating that children from divorced families are particularly influenced by conflictual family dynamics (Sprague & Kinney, 1997). Although Braithwaite, Doxey, Dowdle, and Fincham (2016) reached a different finding—that the effects of conflict were seen in children only when fighting parents stayed married and not when parents divorced—many other studies have shown that conflict between parents does affect children even after their parents divorce (Franklin et al., 1990; Sprague & Kinney, 1997). Even though parental conflict may not appear to have long-term effects on children, exposure to conflict may translate to hardship for those children in forming healthy romantic relationships.

Transgenerational Patterns of Conflict

Although parents may not realize it in the moment, when they argue they are modeling conflict behaviors for their children and are teaching by poor example. If parents take no measures to decrease the level of conflict in their relationship, their children may perpetuate the same problems in the future. Cui and Fincham (2010) found that when parents have a large amount of conflict
in their relationship, their children may struggle with discord in their future marriages because they may have learned unhealthy behaviors and habits from their parents. If parents are uninformed of the effects that arguing has on their children, they may think that divorce is a sufficient resolution; however, continued conflict factors significantly into children’s future troubles in their own marriages.

Furthermore, Teachman (2002) found that when parents divorce, children are more likely to experience divorce in their own marriages. Research has also shown that effective parenting following divorce can reduce the negative effects that children experience (Beckmeyer et al., 2014; Haaz et al., 2014; Mahrer et al., 2014; Shulman et al., 2012). Additionally, the transfer of conflictual marriage and divorce from parents to children may be halted by decreasing the conflict in the parents’ postdivorce relationship (Gager et al. 2016). Furthermore, Sandler et al. (2013) found that “even in high-conflict divorces, the quality of parenting . . . can have an important effect on their children’s mental health” (p. 922). Improved mental health benefits children and may contribute to the decreased likelihood of experiencing divorce and other troubles in future relationships, as mental health disorders have been linked to higher likelihood of divorce (Breslau et al., 2011).

In a study examining conflict and divorce, Gager et al. (2016) revealed that “long-term exposure to high conflict had the most transformative effect on adult children’s relationship conflict” (p. 257). Although this statement was given as a reason for high-conflict parents to divorce, it is equally valid as a warning against conflict following divorce. When parents divorce but maintain the same level of relationship conflict, their children will still experience the negative effects of exposure to such conflict, in addition to the effects of divorce. If parents fail to take measures to reduce their arguing following divorce, their children are likely to experience the same conflict-based issues in their own marriages.

**Conclusion**

Although divorce is prevalent in modern society, the negative effects of marital dissolution on children’s future romantic
relationships need not be. As the example of the Robison family illustrated previously, such problems exist but can be moderated if the parents know what measures to take. One strategy is coparenting; maintaining a cooperative and involved parenting style following divorce greatly reduces the negative effects of divorce, especially for daughters (Haaz et al., 2014; Mustonen et al., 2011; Shulman et al., 2012). While physical and emotional distance between parents frequently follows divorce, their efforts to continue parenting together greatly benefit their children.

Another tactic to reduce the adverse effects of divorce on children is a unified parental determination to minimize the conflict in the postdivorce relationship. Not only does the divorce itself impact children, but continued parental conflict has additional consequences, including learning and adopting the parents’ conflict styles (Cui & Fincham, 2010; Gager et al., 2016), developing future struggles with selflessness and trust (Sprague & Kinney, 1997), and experiencing difficulty in future relationships due to a more negative worldview (Franklin et al., 1990). Parents who take measures to decrease their levels of conflict can decrease the likelihood that their children will experience these consequences in the future. Increased awareness of the effects of divorce on children could motivate parents to take actions that decrease the divorce rate by halting the transmission of negative learned behaviors from parents to children, such as frequent conflict and lack of commitment to marriage. Increasing parents’ awareness of how to help their children successfully navigate divorce may lead to a decrease in the divorce rate, which may be due in part to the increased mental health of the children.

This area of study offers many opportunities for future research. The literature contains information regarding the effects of divorce on daughters, but would benefit from research devoted to the effects of divorce on sons. Additional research could be conducted to determine the most effective approach to raising awareness about the effects of divorce. Informing parents regarding the potential effects of divorce on their children may be most effective if incorporated into the process of filing for divorce. This
education could take the form of a mandatory class, an information meeting, or a video that divorcing parents must watch. The mode of delivery may not be as important as exposure to the information, which ideally would delineate not only the potential effects but also the steps parents can take to minimize those effects. Possible beneficial actions include efforts to continue parenting together and efforts to minimize conflict in the postmarriage relationship. Research has found each of these practices to be effective in reducing the consequences of divorce for children, as each contributes to the healthy formation of children’s future romantic relationships (Cui & Fincham, 2010; Gager et al., 2016; Haaz et al., 2014; Shulman et al., 2014). If awareness of the effects of divorce on children is increased, parents may more easily take steps to mitigate these effects and thereby increase their children’s future romantic relationship success.

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### Table 1

<table>
<thead>
<tr>
<th>Family Dynamic</th>
<th>F</th>
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<tbody>
<tr>
<td>Conflict in family of origin</td>
<td>24.47***</td>
</tr>
<tr>
<td>Trust in child’s romantic relationship</td>
<td>4.31*</td>
</tr>
<tr>
<td>Altruistic love in child’s romantic relation</td>
<td>9.22**</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01  ***p < .001

*Note.* Children from divorced families reported significantly higher levels of conflict in their families of origin than children from intact families. Children from divorced families also reported significantly lower levels of trust and altruistic love in their romantic relationships. Adapted from “The Effects of Interparental Divorce and Conflict on College Students’ Romantic Relationships,” by H. E. Sprague, & J. M. Kinney, 1997, *Journal of Divorce and Remarriage, 27*(1-2), pp. 85-104.
Negative Effects of Divorce and Possible Intervention Program Development and Improvement

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Abstract

Current psychological research demonstrates that parental divorce can have negative effects on children (Amato, 2005). This review compiles and compares research regarding the different effects of divorce on emotional, social, physical, and mental well-being of children of divorce. The research outlined in this review studies children ages 0-18 in the United States but focuses on children in elementary and middle schools. Present intervention programs for children of divorce are compared and the different goals and methods of each are then identified. These methods are compared based on their effects on the participants. By looking at the improvements in social, emotional, physical, and mental health of the participants in each program, the most successful methods are identified. The successful aspects of each program are compiled to suggest the development of a new program including all these components. Suggestions for further research on effects of divorce, current intervention programs, and possible future programs are then discussed.
Negative Effects of Divorce and Possible Intervention Program Development and Improvement

In 2014, the Center for Disease Control showed that about 50% of all marriages in the United States end in divorce. High divorce rates have stimulated more research regarding the negative effects divorce has on children. Valdez (2007) said, “The children of the conflict-filled divorces, whom I call America’s Little Warriors, often endure both emotional and physical trauma as their parents try to maneuver their way through their own conflict (p. iii).” This literature review explores the extensive negative effects of divorce on children’s mental, emotional, social, and physical health. It explains that, as compared with children of continuously married parents, children of divorced parents are at increased risk of have difficulty trusting others and forming relationships (Emery, 1996), struggling with behavior problems like violence (Rex, 1996), performing at a lower level academically than children whose parents don’t divorce (Kim, 2011), and having decreased physical health (Arkes, 2013). By presenting specific studies examining potential negative outcomes for children of divorced parents, this literature review shows the need for more intervention programs to help children overcome these effects.

While there is much research on the negative effects of divorce on children, there is not adequate research on how to alleviate these effects. While many intervention programs have been developed to help children of divorce, the research suggests that many of these programs are insufficient. This review will explore five of the most researched intervention programs and their strengths and weaknesses. Since each program has different goals and methods, they have different outcomes. Some focus more on improving parent-child relationships, others strive to help students overcome emotional problems, while yet others seek to improve social skills (Angacian, Bray, Kehle, 2015). This literature review compares the different methods in each of the five programs to demonstrate which are the most effective and important for a child overcoming the negative effects of divorce. The purpose of this literature review is to present the severity of the effects of divorce on children in
order to demonstrate the need for intervention programs, as well as to suggest what kind of programs and methods will be most successful with further research, development, and implementation.

Methodology

Relevant research about effects of divorce on children and available intervention programs was found by searching social sciences databases including EBSCO and Scopus for primary research material. Then, 31 peer-reviewed journal articles published between 1990 and the present (2017) were reviewed. In order to explore a broad variety of research on the topic, terms such as “effects of divorce,” plus “children or youth,” were searched to find potential negative effects of divorce. Terms such as “intervention programs for children of divorce” were searched to examine the intervention programs already in place. Studies were then considered in this review if they: (a) addressed effects of divorce on children’s emotional, physical, and social well-being or academic performance; or (b) discussed the qualities of a particular intervention program and its results.

The 31 original articles were narrowed down to 12. Articles were eliminated that (a) focused more on the effects of divorce on the parents than on the children, (b) discussed divorces resulting from abuse, or (c) simply focused on any type of family disruption or dispute, as the aim of this review is to focus solely on the effects of divorce on children. Articles that focused on long-term effects were kept and considered to be especially important. Similarly, journal articles that pointed out gaps in research for intervention programs were considered particularly valuable.

The Negative Effects of Divorce on Children

Because the negative effects of divorce on children are extensive, this section breaks them into categories. The research in this section presents the effects of divorce on emotional, social, and physical health as well as on academic performance.

Emotional Health

Divorce and the conflict leading up to it can be detrimental for the emotional health of the children involved and can lead too much stress and anxiety. Children whose parents are constantly
arguing are more likely to have a hard time learning to trust and connect to them (Emery, 1996). Similarly, frequent family conflict creates stress and threatens a child’s environment and sense of security (Emery, 1996). Jekiel (1998) demonstrated this phenomenon in a study conducted over a four-year period with 241 families in the United States that experienced divorce and found that children in divorced homes had higher levels of depression and other emotional problems than children in the families that stayed intact. Amato (2005), in reflection of his 67 studies in the 1990s, agreed that although the difference is small, the emotional well-being of children with divorced parents is lower than that of children with intact families. He speculates that some of the emotional problems seem to result from the fact that children with divorced parents often have a lower standard of living than other children. Along with this, they are not as likely to receive the same quality parenting or to continue creating important emotional bonds with their parents as other children who live with both biological parents (Amato, 2005). During a family’s process of divorce, the children are more likely to have internal conflicts, depression, and lower self-esteem (Kim, 2011). These emotional problems often linger for a few years. This data demonstrates that children of divorce may have decreased emotional well-being due to the stress in their lives.

Social Health

Not only does divorce affect the emotional health of children, but, according to Emery and Rex (1996), it also affects their social health by causing behavioral problems such as increased aggression and lower communication skills. Children learn by the example of their parents, and by witnessing their parents’ ineffective problem-solving strategies on a regular basis, they adopt these unproductive, and sometimes violent, approaches. Moreover, parents often become stricter and harsher with their punishments during times of greater marital conflicts, especially before and during the divorce process. Such intensified punishment has shown a positive correlation with behavioral problems in children including increased violence, anger, and bullying (Emery, 1996).
Children of divorce have also shown difficulty in having healthy relationships later as adults. Fergusson, McLeod, and Horwood (2013) report such phenomena in the Christchurch Health and Development Study, which followed 1,265 people from birth until age 30. They found a positive correlation between people who experienced the divorce of their parents as children and later had an increased amount of poor, violent, and dysfunctional relationships. Kim (2011) found similar results when he studied children from kindergarten through eighth grade. His results indicated that during and after the divorce of their parents, children had a harder time making and keeping friendships. They also had a hard time talking about their feelings and communicating with others. These problems can greatly affect the social life of a child, especially during the two years that immediately follow a divorce (Kim, 2011).

**Physical Health**

Physical health is another aspect of well-being affected by divorce. Britt, Haack, Muth, and Scisco (2010) found that children of divorced parents were more likely to have higher blood pressure and heart rate when they were exposed to public displays of affection (PDA). Research conducted by Arkes (2013) reveals the physical health problems caused by divorce may include increased likelihood of their partaking in harmful substances such as alcohol, cigarettes, and marijuana. Arkes (2013) also indicates that this increase in substance abuse often begins before the actual divorce as a result of the conflict and stress in the home and may worsen during and immediately after divorce. Alcohol, drugs, and tobacco are associated with decreasing physical health. This is especially harmful to youth who are still developing because these substances can stunt their learning (Brown, 2001). Thus, divorce indirectly influences the physical health and addictions of the children involved.

**Academic Performance**

Kim (2011) demonstrates that divorce causes a decline in the academic performance of children, as shown in lower reported test scores than children from intact families. Kim’s interpretations of
the Early Childhood Longitudinal Study Kindergarten Class, which observed children from kindergarten until they ended eighth grade, also reveal that children with divorced parents or with parents in the divorce process received lower math test scores on average than the other students. Recently, Arkes (2013) performed research that further supports Kim’s ideas. He studied over 4,000 children (ages seven to 14) over a four-year period—half of them experienced a divorce of their parents. His findings illustrate that not only are children affected academically after a divorce, but also before, due to tensions and stress in the home. They have lower math and reading scores than children whose parents do not eventually get divorced. His studies also demonstrate that for about two years after the divorce of their parents, children score significantly lower on reading tests than other students. While most academic habits returned to normal over time, reading comprehension scores stayed significantly low over the years (Arkes, 2016). This research shows that there may be a correlation between children of divorce and lower academic performance compared to children of intact families. This, along with the other research presented about negative effects of divorce, supports the need for more intervention programs.

**Interventions for Children of Divorce**

While there are many intervention programs for children of divorce, few have been able to help children overcome all the emotional, social, physical, and academic setbacks. Failures may relate to ineffective development and implementation. The five most researched programs are presented here. Their strengths and weaknesses are also evaluated. While some focus their methods on improving the ability to form relationships, others focus on overcoming other emotional problems such as self-blame and low self-esteem, and others target other emotional and behavioral problems. None of these programs, however, target all the areas of health affected by divorce.
In-School Programs

Angacian, Bray, and Kehle (2015) suggest that besides the home, the school setting is one of the best settings for children to receive nurturing, counseling, and support for their problems. They discuss a few programs that have been implemented in different school systems to specifically help children whose parents get divorced; one of these is the New Beginnings Program (NBP). This program focuses on improving the mental health and the relationship between parents and children of divorce. NBP involves therapy sessions for the parents and children and aims to change certain aspects of the children’s environment to improve their coping skills. Therapists adjust a child’s exposure to parental conflict and improve the parental discipline methods. Sigal, Wolchik, Tein, and Sandler (2012) investigated the outcomes of implementing this program in community settings. He found that NBP helped to improve parent-child relationships, decrease behavioral and psychological problems, and decrease drug and alcohol use of the participants. These positive results imply that this program and others, if further developed and implemented on a larger scale, could help more children of divorce.

Another program is the Children of Divorce Intervention Program (CODIP). Unlike NBP, which focuses on changing a child’s environment and his reactions to his environment, CODIP concentrates instead on improving children’s ability to identify and express their feelings and emotions (specifically about divorce). Its goal, like that of NBP, is to help children develop skills to eliminate their anxiety about family problems and, thus, decrease emotional and behavioral problems. Unlike NBP, CODIP does not provide sessions for the parents or focus on parent-child relationships. CODIP accomplishes its goals through counseling and the use of board games that target specific ages and problems to help the children develop these coping skills. It is a worldwide program that has been instigated by some school systems as a counseling experience (Angacian et al. 2015). CODIP has been very successful in lowering behavioral problems and helping children have positive feelings about divorce and less anxiety (Durlak, 2013).
Another unique program is called COPE. Angacian et al. (2015) conducted a study regarding the COPE program, which includes a peer-modeling component of helping children of divorce have social interactions with their peers to improve social skills. He found that this program was successful in increasing the ability to respond and initiate conversations in an appropriate manner with the children of divorce that were studied. This program also helped decrease the children’s number of inappropriate verbalizations as well as inappropriate responses to questions. These inappropriate verbalizations and responses are defined as anything not relating to the context, swearing, name-calling, or anything sexually inappropriate. This demonstrates that programs like COPE seeking to improve social skills may have positive effects on children of divorce.

Community-Based Programs

In addition to intervention programs implemented in school systems, some communities strive to help children of divorce with other programs or forms of counseling. Pelleboer-Gunnink, Van der Valk, Branje, Van Doorn, and Deković (2015) discuss the effectiveness of one such program called Kids in Divorce Situations (KIDS). This program is similar to NBP in that it aims to decrease emotional problems as well as improve the relationship and communication between parents and their children after divorce. It is unique in the fact that a typical session in the KIDS program includes role-play, assignments, and conversations that help children learn to recognize their feelings, deal with change, and understand that they aren’t responsible for the separation of their parents (Pelleboer-Gunnink et al. 2015). Along with the meetings for children, there are two sessions for the parents to inform them of their children’s progress and instruct them on how to help. Pelleboer-Gunnink and colleagues (2015) studied a group of children in the KIDS program both before they participated in the program and after. Their control group was made of children of divorce who did not participate in the program. They found that the KIDS group had a significant decline in emotional problems, while
the control group had no decline. Similarly, the communication between mother and child and between father and child significantly increased in the KIDS group whereas there was no change in the control group. These results are similar to those of the NBP program and also demonstrate that post-divorce intervention has a positive effect on children.

Another program that has a positive correlation with helping children and families of divorce is called Building Healthy Families (BHF). According to Slavkin (2008), this program aims to identify the factors that cause each specific divorce. It then teaches emotional skills to the parents and children involved, helping them react in a more positive way. This is similar to the NBP approach of identifying environmental factors that may be harmful to a child’s well-being, but is different in that it doesn’t aim to change the environment, but instead teaches how to react to it. As well as providing counseling services for children, this program also provides educational workshops for the parents, similar to those of NBP and KIDS, which teach them how to help their children in these situations. Slavkin (2008) tested 600 children by giving them questionnaires before the intervention program and after. They were asked to answer different questions about self-blame, feelings of neglect, sexual abuse, feeling torn between parents, and feelings of anger. He found a significant difference in average scores post-intervention versus pre-intervention. The children reported in post-intervention questionnaires that they felt less anger, neglect, responsibility for their parents’ actions, and tension between parents. They also blamed themselves less for receiving verbal abuse from their parents (Slavkin, 2008). This program is unique from the others previously mentioned because it focuses on decreasing self-blame.

Comparing the Existing Intervention Programs

As demonstrated by the studies of the intervention programs for children of divorce, the qualities that seem to make a program successful are ones that target specific problems that affect children after the divorce of their parents. The programs discussed in this
literature review all help children learn how to recognize and deal with their emotions. Some, like CODIP and KIDS, also seek to improve communication with the parents and decrease behavioral and emotional problems. Others, including KIDS, COPE, and BHF, teach children coping skills that help them adjust to change and to not blame themselves for family conflict. Some like NBP and KIDS provide workshops to educate the parents and incorporate games and role-play assignments to improve emotional and behavioral well-being. Slavkin (2008) suggests that programs should focus on increasing self-esteem and provide counseling to help parents and children transition from a two parent to a one parent home. Along with this, Angacian (2015) argues that there still aren’t enough programs to improve social skills in children of divorce. He claims that this is a key area because children’s social skills affect their academic success as well as their future relationships. Improving social skills may help eliminate severe behavioral problems in children of divorce. While all of these are desired results of an intervention program, no one program has been able to produce them all. Table 1 demonstrates the previously mentioned qualities of successful intervention programs as well as which of the five programs discussed in this literature review incorporate which qualities. In Table 1, three represents high influence, two represents moderate influence, and one represents little influence.

Table 1 demonstrates that the most common goals of the existing intervention programs are to provide counseling, improve parent-child relationships, and improve coping skills in children of divorce. There is less of a focus on improving social skills, decreasing self-blame, overcoming feelings of being torn between parents, and overcoming problems that result from change in caretaker roles.

**Limitations**

While this literature review provides strong evidence and research that divorce has negative effects on children and that there is a need to develop more and better intervention programs, more thorough work and research should be done to identify
exactly what kinds of programs to develop. This study does not include research on all of the intervention programs available or their success rate. It also doesn’t include much research on where intervention programs are implemented and what areas still need them.

**Implications**

Each of the interventions discussed here have proven to be successful. Some improve emotional well-being, others decrease behavioral problems, some improve social skills, and most improve child-parent relationships. Unfortunately, however, researchers have yet to discover a method to achieve all of these results from a single program. Because of this, future work on this topic should focus on doing more research on how to combine the different techniques from the different programs into one program that obtains all of the desired results. Psychologists should strive to develop a program that provides counseling for children and workshops for parents, improves coping skills, increases ability to identify and talk about feelings and emotions, improves parent-child relationship, decreases child exposure to parental conflict, decreases self-blame, improves social skills, helps families overcome challenges that arise from changes in caretaking roles, and decreases feelings of being torn between parents. While developing a program with all of these goals and methods may be a difficult and expensive pursuit, future research should focus on how to make it possible. Researchers could focus on how to develop intervention techniques that address more than one of the desired solutions to help children of divorce. Further research should be done on how to implement this program all across the United States and, if it is successful, the world.

**Discussion**

The purpose of this literature review was to explore the range of negative effects that divorce has on children and to highlight the need for additional research and intervention programs. The intent was also to explore the different intervention
programs in place for children of divorce and the qualities that make a program like this successful. The expectation was to find a lack of high-quality intervention programs for children, and it was found that while there are successful ones, they may need to be improved and expanded to be more effective.

As the research included in this literature review has demonstrated, divorce can have long-lasting emotional, social, physical, and academic effects on children. Unfortunately, the well-being of children of divorce is often either forgotten about or seen as less important than that of the parents (Slavkin, 2008). Slavkin’s (2008) research demonstrates that the quality of child-parent relationships decreases during and after divorce because many parents are too busy and stressed to focus on their children. Children of divorce, or “America’s Little Warriors” as Valdez (2007) refers to them, often face the emotional, physical, social, and academic setbacks caused by divorce alone. As shown earlier in this review, Kim’s (2011) and Arkes’ (2013) research supports the idea that children of divorce have a harder time doing well in school, which makes it harder for them to succeed in future careers and life pursuits. Along with this, Ferguson et al. (2013) suggests that children of divorce have a harder time making and sustaining important relationships, and Emery (1996) adds that it is also more common for children of divorce to develop behavioral problems and become violent, thus affecting their future families and children. As we have seen in this review, much research has been done about the negative effects of divorce on children and many intervention programs have been developed as a result. However, a lack of research exists to further develop these programs and implement them as part of every community in the country and hopefully world.

This literature review extends the work of Kim (2011) on the effects of divorce on academic performance of children by comparing his results to similar results found by Arkes (2013), thus substantiating both studies. Both studies found that experiencing divorce in the family leads to a drop in children’s test scores—sometimes lasting for a few years (Arkes, 2013; Kim, 2011). This
literature review similarly extends the work of Emery (1996) on the effects of divorce on social well-being of children by including the research of Ferguson et al. (2013). Emery (1996) focuses on behavioral problems such as violence and poor communication skills that arise in children of divorce where Ferguson et al. (2013) take this research a step further by demonstrating that these problems can be long lasting and affect future relationships and social skills.

Additionally, this review supports the work of Angacian (2015) by showing that most of the intervention programs in place for children of divorce lack the components and research to improve social skills. He gives the example of the COPE program, one of the few that focuses on overcoming social problems caused by divorce. This program was shown to have helped many children have successful careers and future relationships. This review demonstrates that the intervention programs outlined focus more on addressing emotional effects of divorce than the effects on social health.

This study compiles the research done on the negative effects of divorce on children and adds some new information to the field of psychology by examining what methods are necessary in an intervention program. Different intervention programs were examined and then broken down into what qualities or components make them successful. Each program is unique in its way of counseling and helping children of divorce. Some focus mainly on improving relationships with parents, some strive to help children develop coping skills and improve self-esteem, others help children stop blaming themselves for the separation of their parents, a few work on improving social skills, and many provide workshops for the parents. A truly successful program, however, needs to implement all the components found in the five intervention programs listed in Table 1. A single intervention program should strive to help children overcome self-blame, improve self-esteem, improve abilities to form relationships, improve social skills, and improve relationships with parents. By doing so, a program may potentially be able to help children of divorce overcome the emotional, social, physical, and academic setbacks that arise. A program like this could be implemented globally to help children all over the world.
References


### Components of Programs

<table>
<thead>
<tr>
<th>Component</th>
<th>NBP</th>
<th>CODIP</th>
<th>KIDS</th>
<th>BHF</th>
<th>COPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counseling for children</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Workshops for parents</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Improving coping skills</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Expressing emotion/feelings</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Improve relationship with parents</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Decrease exposure to parental conflict</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Role-play and assignments</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Decrease self-blame</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Improving self-esteem</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Improving social skills</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Overcome changes in caretaking roles</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Decrease feeling of being torn between parents</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

*3=high influence, 2=moderate influence, 1= little influence*

*Table 1. Qualities Found in Each Intervention Program (Angacian et al. 2015), (Sigal, 2012), (Pelleboer-Gunnink et al. 2015), (Slavkin, 2008)*
Measuring Attitudes Toward the Use of Technology in Relationships

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Brigham Young University

Abstract

The purpose of this study was to develop a measure of attitudes toward technology in marital relationships, the Assessment of Attitudes Toward Technology in Relationships (AATTR), and to determine its reliability and validity. Specifically, we assessed the attitudes, either positive or negative, of both cell phone usage for interspousal communication and attitudes of television viewing in the home as a means of spending time together. We recruited participants via convenience sampling, distributed an anonymous survey on Facebook and Brigham Young University’s Learning Suite (a site created by the school to facilitate course organization and teacher-student interactions), and had 154 participants complete the questionnaire. To select the questions for the survey, 30 questions were compared in a Content Validity Ratio analysis, and the 10 highest-scoring questions were selected for the questionnaire, because these questions had the highest likelihood to produce reliable and valid results. In examining the AATTR, a statistical analysis showed that the AATTR was neither reliable nor valid. Cronbach’s alpha revealed poor internal consistency ($\alpha = .54$). Pearson’s bivariate analysis indicated a weak linear relationship between test items. Face validity was also poor: only 3.9% of the participants correctly identified the construct or purpose of the survey. The analyses indicate that the AATTR is not ready for real-world application at this time. Further revisions and research are needed to create a reliable and valid measure.

Keywords: cell phone use, television use, validity, reliability, measurement of attitudes toward technology use
Measuring Attitudes Toward the Use of Technology in Relationships

In recent years, the impact of technology on individuals has become exponentially larger (Bose, 2010). For example, cell phones and television have become an integral part of everyday life and a popular topic in interpersonal conversation. Many new measures have been developed in an attempt to understand differing attitudes toward technology in general society, in the workplace, and in the classroom (e.g., the Technology Acceptance Model [TAM]), but none of these measurements look at attitudes toward technology, specifically within the context of marital relationships (Davis, 1993; Goldman & Kaplan, 1972; Van Volkom, Stapley, & Amaturo, 2014). Measuring attitudes toward technology in marital relationships is important because technology is intertwined with almost every part of people’s lives. Although a positive correlation has been found between the perceived usefulness of technology in the workplace and the belief that technology is useful in dealing with relationship and family conflict, current measures of the acceptance of technology in the workplace should not be considered valid indicators of its acceptance in the home because the tests are designed to measure divergent aspects of technological acceptance (Fenner & Renn, 2010). To understand the acceptance and place of technology in marriage, a new measure ought to be used.

We will measure individuals’ attitudes toward technology in marriage through two components: attitudes toward cell phone usage with one’s spouse and attitudes toward the use of television in the home. In other words, this study focused on cell phone usage in interspousal communications and the use of television as a means of spending time together. The specific operational definitions are found in the next paragraph. The Assessment of Attitudes Toward Technology in Relationships (AATTR) may be helpful to any family counselor or researcher interested in the impact of technology in the home and in marriages so that they may understand how to best help others if issues arise involving technology. The AATTR is also valuable because it can show the attitudes or expectations toward technology, which can help...
researchers better understand what roles technology may play in the relationship (e.g., communication, entertainment, disputes). From what we have seen in current studies that involve measuring attitudes toward technology in relationships, researchers develop their own methods of measurement unique to each study; therefore, a new, standardized method, generalizable to all relationships that take place in areas with access to technology, should be created that can produce reliable results and that can be analyzed and compared between studies.

For the purposes of this study, we operationally define attitudes toward technology in relationships as the degree to which a person accepts the use of technology in communicating and spending time with his or her spouse as manifested through cell phone and television usage. We define the first domain, cell phone usage, as a medium of communication between spouses that includes texting, calling, or any other impersonal form of communication through a cell phone. As for the other domain, we operationally define television usage as the amount of time television is used as a means of spending time together. These two domains should indicate couples’ attitudes toward cell phones and television and their place in a relationship.

Research shows that marital communication is key to relationship success, so cell phone usage as a means of communicating with one’s spouse may affect the success of a relationship and could be an important way to measure the acceptance of technology in a relationship (Lavner & Bradbury, 2012). For the estimated 85% of North Americans that own cellular phones, the cell phone may be the most frequently used form of technology because it is on one’s person most of the day (Smith, 2012). Cell phone usage can impact the types of communication and the levels of commitment in daily marital living, which are two strong predictors of divorce (Lavner & Bradbury, 2012). However, a measure does not exist that correlates cell phone use with attitudes toward technology. Measuring types of communication in marital relationships has been conducted through observation only, relying on the researcher’s ability to explicitly state what emotions and
attitudes are involved when using different forms of communication (Lavner & Bradbury, 2012). Because researchers cannot accurately make these judgments, a self-report measure may be more accurate in determining people’s attitudes.

Attitudes toward television usage is another useful domain for measuring the acceptance of technology in a relationship. In recent years, television has played a large part in many American lives, especially in the rising generations. Research shows that children from the ages of 8–18 spend an average of 7.38 hours a day watching television and that the amount of television watched by youth increases every year, suggesting that television plays a significant role in life from a young age (Bose, 2010). As individuals age into adulthood, television may be more likely to create certain attitudes about different aspects of romantic life (Rivadeneyra & Lebo, 2008). Correlations have also shown that the level of personal commitment to the relationship decreases as romantic couples increase the amount of dedicated television viewing time together (Reizer & Hetsroni, 2014). Because of its role in people’s daily lives and its effects on relationships, television can be useful in measuring people’s acceptance of technology in relationships.

We anticipate that the AATTR will be useful for many future studies seeking to understand direct correlations between attitudes toward technology in relationships and marital quality, marital satisfaction, and marital success. Studies show that measures of both cell phone and television usage in relationships are good indicators of attitudes toward technology in relationships because they are among the most commonly used forms of technology and they play a daily role in the communication and interaction of many couples; however, there currently are not any measures that use these two domains for measuring attitudes toward the use of technology in relationships. In order to better understand these attitudes, a measure incorporating these two domains should be developed, so we created the AATTR. We hypothesize that the AATTR will be a valid and reliable measure of attitudes toward technology as a form of communicating and interacting with one’s spouse.
Method

Participants

There were 154 participants in this study, 84% (128) of whom were female and 16% (26) of whom were male (see Table 1). Concerning the ethnic distribution of our sample, 94.67% of the participants were White, 2% were Asian, 2% were Native American, .67% were Pacific Islander, and .67% identified themselves as “other.” The average age of the participants was 33.71, the youngest being 18 and the oldest being 75. Most of the participants were married (92.21%) or in a relationship (5.19%), with only four participants (2.60%) being single. The participants were recruited using convenience sampling. They volunteered to participate in the study by filling out an anonymous survey via Facebook (www.facebook.com) or BYU Learning Suite (learningsuite.byu.edu).

Item Construction

The AATTR was generated from a pool of 30 questions. Thirty-nine undergraduate psychology students judged the relevance of each of the 30 questions to our two domains. Content validity ratio (CVR) ratings were calculated and 10 questions were selected to be used in the survey. The CVR ratings for these 10 selected questions ranged from .44 to .79 (M = .63 SD = .12; see Table 2). We did not include two questions with better CVR ratings in order to include questions that were not too similar so that we could obtain a better range of opinions and reduce the number of thoughtless responses.

Test Administration

The AATTR was administered electronically through Qualtrics (www.qualtrics.com), a survey engine website, via an anonymous link posted on Facebook and BYU Learning Suite from February 18 – 27, 2017. Convenience sampling was used to gather the information.

Statistical Analysis

As mentioned above, we used CVR ratings to analyze content
validity and select our items for use in the questionnaire. After administration, we used Cronbach’s alpha and Pearson’s bivariate correlations in order to assess the internal consistency and reliability of the AATTR. Face validity was checked using an open-ended question at the end of the AATTR that asked respondents what they thought the assessment was supposed to measure. Two factors were chosen to be analyzed through information given from the scree plot deflections and eigenvalues. All analyses took place using STATA 14.

Results

Through factor analysis, and measuring for reliability and validity, we were able to determine the effectiveness and quality of the AATTR.

Factor Analysis

A factor analysis revealed two components that accounted for 107.29% of the variance and had eigenvalues of 1.51 and .89 (see Table 3; Figure 1). This two-factor solution was consistent with the original design of the questionnaire to access only two factors. Questions 2, 3, 5, 6, and 7 had primary loadings on the first factor, and questions 9 and 10 loaded primarily on the second factor (see Table 4). Questions 1, 4, and 8 did not significantly load onto either of the two factors (see Table 4). These findings do not align with the organization of the two domains we intended to analyze.

Reliability

Cronbach’s alpha indicated that the test’s internal consistency was poor (α = .54; see Table 5). This indicates that the questions did not vary together or are closely related as a set of items as a group. A Pearson’s bivariate analysis revealed 15 of 45 correlations were significant, indicating a weak linear relationship between the majority of the test items (p < .05; see Table 6).

Validity

Overall, our questionnaire provided mostly strong content validity. Seven of ten questions had superior content validity (≥ .55),
one question had high content validity ($\geq .45$), and two questions had moderate content validity ($\geq .35$; see Table 2). Six percent of our participants correctly identified the construct, indicating that the test had low face validity.

**Discussion**

Due to the importance of romantic relationships and the increasing rise in technology, we created the AATTR, which is a test that can measure attitudes toward technology specifically within marital relationships, a standardized measure of which currently does not exist. After obtaining the results from the AATTR, we assessed its psychometric properties and factor structure. We conducted a factor analysis and two significant components were found. Although the original test was designed to target two domains, the factor matrix revealed that a lot of loading on the first domain was present, meaning that most of the associations targeted only one domain. Furthermore, the items loading onto this domain came from those intended to measure two separate domains. Due to these results, we cannot be sure what this first domain is, but it is most likely a mixture of our original domains: attitudes toward cell phone usage with one’s spouse and attitudes toward the use of television with one’s spouse in the home. Perhaps these two domains are too similar to be measured separately. Also, it is possible the questions were not worded well enough to create two different domains. These loadings affected the construct validity of our domain and did not support our hypothesis that the test would be valid. In future versions of the AATTR, we would seek to establish more distinct domains in our construct and create better questions to increase construct validity.

The content validity was found to be moderately strong. However, error could have occurred in the CVR calculations due to the lack of expertise among the panelists; the panelists were undergraduate students in a psychology course. Furthermore, the panelists were assigned to participate and were not experts in marital relationships or in attitudes toward technology. The ratings given for the original questions could have been the results of
misunderstandings of the construct and domains. The ratings also could have been inaccurate because the students may not have been invested in the questionnaire’s validity, perhaps due to the ratings being considered an assignment, and therefore may have rushed through the assignment in order to complete it before the due date rather than seriously reflecting on how each of the items pertained to the construct.

Although the content validity of the ATTR was moderately strong, the face validity was very poor. One possible source of the low face validity is the specificity of our construct and the participants’ lack of familiarity with technical terms that may have helped them to identify our construct. While a vast majority of the participants recognized that the measure pertained to technology in relationships, they failed to acknowledge that its target was attitudes toward technology rather than technology use or effects. In general, the sample of participants was also unrepresentative of married couples because a vast majority of the participants were Caucasian females, which also makes for poor external validity. The poor sampling was probably due to the lack of funding and time that we had when gathering information, which is why we used convenience sampling. Overall, the validity of the AATTR is not impressive and is unable to support our hypothesis due to the low validity within most validity subcategories.

Furthermore, strong reliability must exist in order to obtain strong validity. Both the Pearson’s coefficient and the Cronbach’s alpha indicate poor reliability, perhaps due to the fact that questions 1, 41, 4, and 8 did not load onto the two factors found in the factor analysis. This may not be a serious problem in a more extensive questionnaire, but it has a large impact on the reliability of the AATTR due to the small size of the AATTR questionnaire. Poor reliability is further evidence that we have poor validity. Taking all the results into consideration, the statistics indicate that our hypothesis could not be supported.

Due to poor external validity, the application of our measure to research is extremely limited. In future studies, many of these problems with validity can be addressed fairly easily. A more
representative sample could be used to improve external reliability, expert panelists could ensure the accuracy of the CVR calculations, and perhaps rewording the questions or incorporating additional items could improve reliability and face validity. If these problems are corrected, the AATTR may be useful in many relationship situations, especially for couples’ counselors. Such a measure could be useful in understanding how attitudes toward technology are related to marital quality, satisfaction, and success, all of which are factors of interest for both researchers and users of technology. However, our measure is currently insufficient to apply to any real-world scenarios. The current version of the AATTR has many problems, and it may be simpler for future researchers to start over in constructing their own questions. Prospective studies should focus on developing an appropriate measure of attitudes toward technology in relationships whether it be through revision of the AATTR or through creation of a new measure.

We hypothesized that our test, the AATTR, would be both reliable and valid in measuring the attitudes toward technology in relationships. After distributing the test and analyzing the responses, we found that it was not a reliable or valid measure. The findings did not support our hypothesis, construct, or domains; therefore, we have to reject the AATTR as an acceptable measure of attitudes toward technology in relationships. More research is needed in order to find a more effective measure. Such a measure would be useful for couples’ counselors in providing an additional dimension for analyzing the role technology plays in the home, which is important to understand in an age where technology is becoming increasingly involved in daily life.
References


### Table 1

**Demographics of Study Participants**

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<tr>
<th></th>
<th>Male</th>
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<tbody>
<tr>
<td>Total</td>
<td>26</td>
<td>128</td>
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<tr>
<td>White</td>
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Table 3

Variance of Questionnaire Items

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Note. Extraction method: factor analysis.

Table 4

Factor Matrix

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Note. Blanks on the table indicate loadings < .40.
Table 5

Pearson Correlation Coefficients for Questionnaire Items

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Note. * Significant at 0.05 level (2-tailed)
Figure 1. Scree plot showing significant eigenvalues for two components in the AATTR.

AATTR Survey Questions

Gender:
Male    Female    Other

Ethnicity:
White  Black  American Indian  Asian  Native Hawaiian/Pacific Islander  Other

Relationship Status:
Single    Dating    Married

If married, how many years have you been married?
0–1  2–5  6–10  10+

How old are you? _____

Please mark the number that best indicates how much you disagree or agree with the following statements:

1. I think my spouse spends too much time on his or her phone.
   Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree    Somewhat Agree    Agree    Strongly Agree
2. Expressing love through text messaging is as meaningful as doing it in person.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Neither Agree nor Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

3. It is appropriate to argue over text messages.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Neither Agree nor Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

4. Being on my phone at the dinner table with my spouse is appropriate.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Neither Agree nor Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

5. I am just as happy texting my spouse as speaking with them in person.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Neither Agree nor Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

6. I consider watching TV with my spouse to be spending quality time together.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Neither Agree nor Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

7. I consider playing video games with my spouse to be spending quality time together.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Neither Agree nor Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

8. I would rather spend a weekend night in watching a movie/TV with my spouse than out on a date with my spouse.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Neither Agree nor Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

9. I am frustrated with the amount of time we spend watching TV rather than talking.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Neither Agree nor Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

10. Television interferes with intimacy.
    - Strongly Disagree
    - Disagree
    - Somewhat Disagree
    - Neither Agree nor Disagree
    - Somewhat Agree
    - Agree
    - Strongly Agree

11. What do you think this test is measuring?
Preventing Eating Disorders by Promoting Media Literacy and Rejecting Harmful Dieting Based Mentalities

McKayla Kagie
Brigham Young University

Abstract

This review investigates the main contributing factors of an eating disorder and how one can facilitate eating disorder prevention. A brief summary of eating disorders and their history is provided. The diet mentality and the negative consequences associated with that mentality are examined. The term “diet mentality” is used intermittently to describe the behaviors and beliefs that surround fad dieting including the desire to manipulate food and water intake to lose weight. How to reject that diet mentality is discussed as part of preventing eating disorders. Additionally, preventative measures include becoming media literate and promoting body positivity. Media literacy is discussed as a way to think critically when viewing and consuming media messages. This review details the effects of media literacy and suggests ways to become media literate. Included are several suggestions on how to promote body positivity in the home, in interactions with others, and on social media. Gaining these skills will likely aid in the prevention of eating disorders.

Keywords: eating disorder, bulimia nervosa, anorexia nervosa, family, diet, prevention, media literacy, body image, self-esteem,
Preventing Eating Disorders by Promoting Media Literacy and Rejecting Harmful Dieting Based Mentalities

Amanda is a college sophomore who was raised in a loving home. Her family is very athletic and often goes on runs together; physical fitness has been and continues to be a significant element in her life. Amanda’s mother has placed her on several sports teams, and always attends the events. When Amanda reached the 7th grade, she became a cheerleader and discovered a love for dance. For a while, Amanda seemed to be a normal and happy young woman. In actuality, unbeknownst to Amanda’s parents, she was deathly ill. It was not until Amanda ended up in the emergency room that anyone realized she was sick.

Amanda started trying to lose weight at age 12 in order to be a lighter, better flyer on the cheer team. Like many girls her age, she tried diet after diet to lower and keep her weight down. Finally, she found a way — if she ate normally and vomited afterward, she believed she would not gain the weight or assimilate the calories from the food she ate. Amanda had a life-threatening eating disorder.

Amanda’s story is one that resonates with over 20 million women and 10 million men in America struggling with eating disorders (Hesse-Biber, Leavy, Quinn, & Zoino, 2006; National Eating Disorder Association, 2016). The pressure for men and women to fit modern society’s ideal body type has become overwhelming. A great many individuals give in to this pressure and spend disproportionate amounts of time and money chasing this ideal. Magazines, movies, television shows, and album covers display “perfect” bodies, faces, hair, and clothing. Advertisements portray tricks, diets, and products that promise to be the cure-all for any number of imperfections. Misleading media messages target men and women, saying that beauty is defined by the thin, the elegant, the muscular, and the sexy; one cannot be beautiful without massive amounts of bodily alterations. No one is exempt from the threats that these types of media exposures pose.

One major industry that profits from those who feel insecure and imperfect is the dieting industry. This industry rakes in a profit...
of more than fifty billion dollars per year from those seeking to alter their bodies (LaRosa, 2017; Maine, 2000). Those billions of dollars are collected from individuals who throw their money into diet plans, purchasing diet-friendly food, buying books and magazines to learn the right tricks for weight loss, and ingesting diet pills. The American population as a whole is fed the unsubstantiated lie that dieting and exercise is the answer to all weight-loss problems. If one ingests only certain “good foods” and removes “bad foods” from their diets, they will be thinner and thereby healthier and happier. Remarkably, it is often this diet mentality that leads to the first taste of an eating disorder. Although the average person is bombarded daily with negative media messages about body image, it is possible to protect vulnerable populations from the bleak prognosis associated with eating disorders. Changing patterns in the home by rejecting the diet mentality, eliminating negative body conversations, and increasing media literacy can help prevent the development of disordered eating behaviors.

Eating Disorders

Eating disorders¹ are largely misunderstood. Individuals struggling with eating disorders spend an inordinate amount of time obsessing over food, counting and restricting calories, purchasing “miracle” dieting products, fasting excessively, misusing laxatives, voluntarily purging, and exercising for immoderately prolonged hours (Hesse-Biber et al., 2006). While these behaviors start out as seemingly harmless attempts to lose excess weight and keep it off, the consequences can be astonishing. Soon after these behaviors are adopted, muscles begin to weaken and deteriorate, hair begins to fall from the head and body, tooth enamel erodes, and sores may develop on the back of the hands (Wandler, 2012). Understanding that eating disorders are life-threatening and should not be taken lightly is vital to prevention efforts.

¹Two primary categories of eating disorders include bulimia nervosa and anorexia nervosa. While each has unique attributes, the two share many defining characteristics (Wandler, 2012). For the purpose of this review, the term “eating disorder” will be used to describe both types, unless otherwise specified.
Eating disorders are the deadliest of all mental illnesses: 10% of women who develop eating disorders die in the first 10 years, and 20% die within 20 years (Hesse-Biber et al., 2006; Wandler, 2012). Another 20% spend the rest of their lives in and out of hospitals and treatment centers, never fully recovering (Hesse-Biber et al., 2006). Some of the signs of an eating disorder include weighing less than 85% of the expected weight for the associated age group, being terrified of weight gain despite being a healthy weight, distorted beliefs about one’s body, and taking extreme measures to become or stay thin (Wandler, 2012). There are a number of contributing elements to the development of an eating disorder. Brechan and Kvalem (2015) suggest that an eating disorder is a coping mechanism for other emotional stressors. In addition, low self-esteem caused by media images, eating attitudes at home, and diet mindsets contribute significantly to depression, low self-esteem, and eating disorders (Kvalem & Brechan, 2015).

Not only are eating disorders lethal (Tribole & Resch, 2003), they are also becoming increasingly common (Hesse-Biber et al., 2006). The etiology of an eating disorder is very complex and multifactorial (Brechan & Kvalem, 2015). No era, race, nationality, class, or gender is safe from the causes of eating disorders (A. Harman, personal communication, March 10, 2017; Hesse-Biber et al., 2006). Some individuals are more susceptible to eating disorders than others depending on their gender, psychology, and personality. Historically, women have been among the more vulnerable.

**History of Eating Disorders**

Ritualistic starvation for religious purposes has long been a part of recorded history, dating back as early as 383 AD (Pearce, 2004). Starvation, outside of pious sacrifice, was first officially identified as eating disorder behavior when anorexia nervosa was named by Ernest-Charles Lasègue and Sir William Gull, separately, but both around 1870 (Soh, Walter, Robertson, & Malhi, 2010). The condition was characterized by patients being unusually thin, weak, and having irregular or absent menstruation (Soh et al., 2010). The
studied patients had begun restricting their food intake, refusing to eat altogether, and over-exercising (Soh et al., 2010). Much like today, these symptoms were identified as disordered behaviors that were very difficult to treat.

In one study, bulimia nervosa was identified as an apparent modification of anorexia (Russell, 1979). Symptoms were described in certain patients that did not meet all the criteria for anorexia such as an absence of food restriction, consistent overeating followed by periods of fasting, and voluntary vomiting of food (Russell, 1979). While purging does sometimes occur in anorexia, it is typically not seen in response to eating an excess of food; rather it is to avoid the calorie intake of consumed food and is generally not a habitual practice (Russell, 1979). Bulimia, as well as anorexia, is accompanied by a concentrated fear of becoming fat (Russell, 1979). This worry, combined with various disordered eating patterns is a recipe for bulimia, the most common eating disorder in America (Lyons & Martin, 2014). Patients struggling with bulimia may not be underweight. In fact, they may appear to be of a normal weight or even overweight, making it harder to identify (Lyons & Martin, 2014; Russell, 1979). Anorexia is easier to detect due to highly visible symptoms. Bulimia is more difficult to detect and may be more common as a result. Being able to hide their eating disorder is advantageous for those who do not wish to be stopped.

**Gender in Eating Disorders**

Women tend to suffer in greater numbers from eating disorders than men do. However, it should be noted that men are not immune to the mentalities and effects surrounding eating disorders (Flanery, 2017; Jackson & Chen, 2015). Biologically part of what makes women more vulnerable than men are natural fluctuations in a woman’s weight due to menses (Hormes & Timko, 2011). These fluctuations combined with the associated hormonal fluctuations can stir up feelings of depression and bodily dissatisfaction, all of which contribute to disordered eating behaviors (Brechan & Kvalem, 2015; Hormes & Timko, 2011). Constantly struggling for control over her body makes a woman a prime target for the diet mentality.
In addition to biological factors, certain psychological and personality-based characteristics have been identified as contributory to the development of eating disorders (Hesse-Biber et al., 2006), which some professionals may argue are the primary causes. Several psychological disorders are comorbid in individuals with eating disorders. The main associated disorders are depression, anxiety, and Post-Traumatic Stress Disorder (PTSD) (Brechan & Kvalem, 2015; Wandler, 2012). Fifty-nine percent of persons with eating disorders suffered from anxiety before their diagnosis, and 74% have also been diagnosed with PTSD (Wandler, 2012). Eating disorders are also strongly linked to trauma and abuse (Isomaa, Backholm, & Birgegard, 2015; Wandler, 2012). Compared to men, women tend to experience more trauma and abuse, especially of a sexual nature, making them more vulnerable to eating disorders (Black et al., 2011; U.S. Department of Veteran Affairs, 2007). Additionally, some individuals with a propensity towards addictive behaviors are especially prone to eating disorders (Sala, 2015; Wandler, 2012). Previous substance abuse is present in as many as 55% of individuals with bulimia and 27% of individuals with anorexia (Wandler, 2012). These individuals have already adopted an addictive lifestyle, making the transition into an eating disorder a simple one. While gender, age, social pressure, comorbid psychological disorders, and propensities towards addiction all contribute to the development of eating disorders, they do not stand alone in its development.

Additionally, social factors likely have an effect on eating disorder development. From a very young age, women feel the weight of society telling them to be thin. Pine (2001), a developmental psychologist, conducted a study on the perceptions that children have regarding the body shapes of men and women. Children ages 5 to 11 were asked to choose from depictions of various shapes which one was ideal for a man and which one was ideal for a woman. Overall, Pine found that girls chose a thinner figure to represent the ideal woman than the boys did. When choosing the ideal figure for a man, both boys and girls chose the average-sized representation (Pine, 2001). The results of this study
imply that being too thin or too fat for a man is socially acceptable; whereas, for a woman, only being thin is the socially supported option (Pine, 2001).

As the thin ideal is internalized, the pressure to meet that ideal drives many women to hate their bodies, and often leads to eating disorders (Brechan & Kvalem, 2015). Brechan and Kvalem (2015) analyzed the effect body dissatisfaction has on eating disorder development and found that it is a key predictor. When one is unhappy with their body and is suffering from low self-esteem, body image becomes unduly significant (Brechan & Kvalem, 2015). Women who have poor body image often become preoccupied with the fear of weight gain and of becoming fat (Brechan & Kvalem, 2015). This decrease in self-esteem often leads to restrictive eating behaviors, as well as binging and purging, as a way to cope with painful emotions (Brechan & Kvalem, 2015). Their obsession becomes their illness.

**Comparison and Media**

Much of the issue of bodily dissatisfaction stems from bodily comparison. Fashion models and many celebrities, the alleged symbols of beauty, promote thin as the ideal (Hesse-Biber et al., 2006). The definition of beauty has consistently changed throughout history, with the 1960s beginning the thinness trend (Hesse-Biber et al., 2006). These sources of inspiration fill the movie screens, television shows, and magazine covers displaying thin as reality (Hesse-Biber et al., 2006; Morrison, T., Kalin, & Morrison, A., 2004; Steakley-Freeman, Jarvis-Creasey, & Wesselman, 2015). Media depicts eating disorder behaviors as acceptable ways to lose weight and deal with insecurities (Hesse-Biber et al., 2006). Many internalize these depictions of thin women as reality, but, at the same time, truly average women feel that they are too heavy and not as beautiful (Hesse-Biber et al., 2006; Morrison et al., 2004). The rich and famous are not artificial people, but they also are not an accurate representation of the average person. This skewed reality makes acceptance of one’s body difficult.
In day-to-day life, women interact with other women, giving them chance after chance to compare themselves to each other. One study in particular examined how the concentration of women at various colleges affected social comparison (Lindner, Hughes, & Fahy, 2008). The results of this study showed that women who attended a predominantly male college scored lower in social comparison and, as a result, scored lower in disordered eating (Lindner, Hughes, & Fahy, 2008). Women attending a college of mostly women scored higher in both social comparison and disordered eating behaviors (Lindner, Hughes, & Fahy, 2008). Despite these women being approximately similar heights and weights, those who had more opportunity for social comparison were more likely to develop eating disorders (Lindner, Hughes, & Fahy, 2008).

Due to recent technological advances, opportunities for social comparison continue to increase. Social media platforms facilitate such comparisons. Highly edited photos posted of family, friends, and acquaintances give the faulty appearance of perfection. While this perceived flawlessness may be far from the truth, the viewer frequently experiences lowered self-esteem (Mabe, Forney, & Keel, 2014). Self-esteem is often based on the reactions one receives after sharing a picture via social media; if the response is inadequate, it can be devastating (Mabe et al., 2014). Mabe et al. (2014) found maladaptive social media use may lead to increased weight loss, obsessing over exercise, and eating disorders particularly in college-aged women.

Advancements in technology offer ever-increasing ways to unintentionally promote eating disorder behaviors. The keys to a supposed healthy lifestyle are broadcasted far and wide through all modes of media. This message is another way of pushing women to reach for the impossible beauty standards of society (Hesse-Biber et al., 2006). Women are the direct targets of companies that create diet and beauty products, each one promising that their product will make them more attractive (A. Harman, personal communication, March 10, 2017). When they buy into that belief, women throw their time and money into an investment with little or no return when they buy into that belief (Hesse-Biber et al., 2006).
Across the Internet blogs and other webpages deliberately promote eating disorders as a lifestyle choice, teaching individuals how to engage in said lifestyle (Gale, Channon, Larner, & James, 2016; Lyons & Martin, 2014; Steakley-Freeman et al., 2015). These pages are complete with instructions on how to purge, abuse laxatives, and fast. These websites include photos of women who represent the ideal and call it “thinspiration” (Boepple & Thompson, 2016, p. 98). These sites portray eating disorders in a positive light, touting sacrifice and self-control (Steakley-Freeman et al., 2015). Fortunately, these sites come and go quickly, minimizing the damage they cause (Steakley-Freeman et al., 2015). But vindictive Internet voices and the obsessive thin ideal make it difficult for women to seek treatment or even realize that they have a problem. In this way, media heavily influences the development and continuation of eating disorders.

**Dieting and Disorders**

The principal culprit of an eating disorder is the endorsement of the diet mentality. Many women would have never developed an eating disorder had they never dieted (A. Harman, personal communication, March 10, 2017). Among professionals, dieting is known as the gateway drug to disordered eating (A. Harman, personal communication, March 10, 2017). In that regard, dieting has become the modern version of ritualistic sacrifice—giving up food to the diet gods in hopes that one will achieve happiness and beauty. Hesse-Biber et al. (2006) refers to this concept as the “cult of thinness” (p. 208). Members of this cult are scared into obedience with threats of obesity and death. The diet industry warns that fatty acids kill 30,000 people a year, that one poor food choice brings them that much closer to a premature death, that one cannot trust one’s own dietary instincts, and that outside sources are the ultimate guide on how and what to eat (Tribole & Resch, 2003). The truth in these proclamations has been stretched considerably. These propagated falsehoods stir up feelings of distrust in food and self, as well as feelings of guilt and shame (Tribole & Resch, 2003). This may push some women to extreme measures.
Dieting, under the guise of discipline, eventually robs an individual of control over their own lives and leaves behind feelings of guilt. The diet industry claims that if the dieter somehow tried harder or did better, he or she would have succeeded. If one simply works hard enough they can meet the ideal (Hesse-Biber et al., 2006). Numbers would say otherwise. The products produced by the industry including specialty foods, eating and exercise techniques, and dietary supplements have a 95% fail rate (Hesse-Biber et al., 2006). The problem is not with the consumer; it is within the products and the industries.

There are hundreds of different kinds of diets and diet products such as “fat-free” foods, all of which promise to help the customer lose weight and keep it off (Tribole & Resch, 2003). Yet obesity is more prevalent in the United States than it ever has been (Tribole & Resch, 2003); children as young as 9, 10, and 11 are going on diets even though they are nowhere near overweight (Pine, 2001). Children, adolescents, and adults alike engage in short-term starvation in order to meet society’s standards (Tribole & Resch, 2003), and many binge on foods that will soon be eliminated before starting the diet (Tribole & Resch, 2003). While dieting, the urges and cravings for forbidden foods preoccupy the mind, becoming even more difficult to resist (Tribole & Resch, 2003). Thus, once the diet has ended and those foods are free game, the binging resumes (Tribole & Resch, 2003). Dieters look for other tricks to resist the urges for their cravings such as smoking, abusing caffeine, and avoiding social gatherings that involve banned foods—harmful behaviors with the potential to severely impact mental health and the body’s metabolism and basic functions (Tribole & Resch, 2003). After the body is repeatedly neglected and abused it often grows weak.

Treatment

Many individuals struggling with eating disorders enter treatment physically and mentally fragile. Individuals in this state require intensive medical care and psychological supervision, but such treatments are difficult and pricey (Loth, Neumark-Sztainer,
Furthermore, eating disorders cannot typically be resolved through medication (Hesse-Biber et al., 2006; Wandler, 2012). Selective Serotonin Reuptake Inhibitors (SSRIs) can be used to treat the depressive symptoms after weight restoration is completed, and the individual can begin psychological healing, but they are still inefficient for specifically treating the eating disorder (Lyons & Martin, 2014; Wandler, 2012). It was once brilliantly stated on the complexities of eating disorder treatment: “Woe to the physician who, misunderstanding the peril, treats as a fancy without object or duration an obstinacy which he hopes to vanquish by medicines, friendly advice, or ... intimidation” (cited in Peabrice, 2004, p. 2). Because treatment after the fact is so difficult, eating disorder prevention is vital.

**Protection and Prevention**

With the thin ideal and the diet mentality as a central part of American society, it is vital that children are raised in homes that reject these false notions altogether. Children at age five already believe that thin is equivalent to beautiful (Pine, 2001), signifying that waiting until adolescence to warn against the dangers of the thin ideal is too late. Removing the emphasis on being thin in the home is a valuable start. Rejecting the diet mentality may begin with throwing out all items that promote the thin ideal; in this, eliminating fashion magazines from the coffee table, and throwing away dieting books, products, and foods is imperative. Taking scales out of the house may also minimize the importance of weight. It is essential to become media literate and understand that which is presented as reality does not have to be accepted as such. “Girls and women need not be conceptualized as passive casualties of the media; they can be seen as agents who can actively resist and subvert the media” (Irving, DuPen, & Berel, 2007, p. 120). Education facilitates prevention. Unrealistic, upward comparison of one’s body to the bodies displayed in the media will likely increase dangerous eating disturbances (Hesse-Biber et al., 2006; Morrison et al., 2004). Superimposing the ideals for different body types onto one another is like trying to force a square peg into a round hole (Hesse-Biber et al., 2006).
Critical thinking is crucial when being exposed to improbable expectations (Hesse-Biber et al., 2006; Irving et al., 1998). Women must assess the accuracy of what the media presents in order to avoid deception (Hesse-Biber et al., 2006; Irving et al., 1998). McLean, Paxton, and Wertheim (2016), in their study, described critical thinking with media use as a form of protection from the mindsets that lead to eating disorders. Additionally, they described skepticism as protective factor for those who frequently engaged in upward comparisons between themselves and individuals who met the thin ideal (McLean, Paxton, & Wertheim, 2016). Having critical thinking skills is an important way to reduce the influence of the thin ideal and prevent the endorsement of the diet mentality.

In fostering media literacy, one might speak out against certain messages that promote body shame or the diet mentality (Irving et al., 1998), decrease the use of certain media platforms, or boycott products that manipulate the thin ideal as a marketing ploy (Hesse-Biber et al., 2006; Irving et al., 1998). When participating in social media, one can decrease the emphasis of appearance-based comments. Additionally, it can help to refrain from using photo editors when uploading pictures (Mabe et al., 2014). Teaching others to become media literate and taking an active role in debunking the myths perceived as truth can also be helpful (McLean, Wertheim, Masters, & Paxton, 2017). Perhaps most importantly, parents (and other adults) can help children think critically and warn them of dangers such as pro-eating disorder websites and misrepresented images.

Parents and other persons in a position to influence children play a vital role in fighting the diet mentality and thinness standard imposed by the media. It is critical that parents build a home environment that supports and encourages a healthy relationship with food and with one’s body. Some eating disorder recovery programs go so far as to embolden the idea that no type of food is either strictly good or strictly bad (Tribole & Resch, 2003). Foods of every kind hold nutritional value, and while some are more nutritional than others, that does not make those other foods bad (Hesse-Biber et al., 2006; Tribole & Resch, 2003). Food is not
something that should be feared, but that is exactly what food becomes for someone in an eating disorder. Food ought never to be used as a reward or a punishment (Hesse-Biber et al., 2006; Loth et al., 2009; Tribole & Resch, 2003). Parents should encourage eating when hungry and discourage overeating when the body sends signals of fullness (Loth et al., 2009; Tribole & Resch, 2003). Avoiding behaviors and attitudes that can corrupt a healthy relationship with food or make eating an unpleasant experience may aid in subverting the diet mentality. (Hesse-Biber et al., 2006; Loth et al., 2009; Tribole & Resch, 2003; Wandler, 2012). Parents need to make a distinction between promoting proper nutrition and destructive dieting. In addition, there are no good or bad body shapes and sizes (Morrison et al., 2004). Bodies are just bodies, not objects to be sized up, polished, and shown off. Parents may lead by example in promoting positive body image (Hesse-Biber et al., 2006; Hillard, Gondoli, Corning & Morrissey, 2016; Loth et al., 2009; Wandler, 2012). Parents can avoid talking negatively about one’s own body, the bodies of one’s children, and the bodies of others (Loth et al., 2009; Tribole & Resch, 2003). Participating in weight-related teasing and pointing out physical flaws negatively impacts children and feeds the thinness standard (Loth et al., 2009). Damaging a child’s body image can contribute to the development of an eating disorder, while facilitating emotional well-being, teaching coping skills, and avoiding the use of food as an emotional release increases self-efficacy (Loth et al., 2009; Tribole & Resch, 2003). It is important to build self-esteem and buoy up a feeling of self-trust.

Conclusion

Eating disorder prevention does not receive the attention it deserves. Most people are unfamiliar with how grim an eating disorder can be, and without proper education on eating disorders and the causes, change is unlikely. Nearly everyone is, or will be, in a position that influences the lives of young men and women, and can take a role in conquering eating disorders. Knowing the signs of an eating disorder makes it possible to help those who are
struggling, but preventing the development of an eating disorder in the first place is even more valuable.

As boys, girls, men, and women grow up, they are exposed to many different pressures and influences throughout their lives. One pressure for boys may be to fit into a certain weight class on their wrestling teams. For girls, it may be to become extra thin so they can glide seamlessly through the water at a swim competition. Women may feel the need to lose weight in order to give the appearance of success. Men may feel like they have to become muscular in order to attract partners. Society not only creates this pressure but also presents an equally harmful solution—dieting.

Dieting is not the answer to all body-shape problems; in fact, it often makes matters worse (Tribole & Resch, 2003). It can condition people to neglect their bodies’ basic needs and teach the body to hate and misuse food. Dieting creates more problems than it fixes, kindling the destructive flame of an eating disorder.

In many regards, media promotes the polluted values of society, enforcing an ideal that is biologically unrealistic. Harmful behaviors are accepted as normal (Mabe et al., 2014). Media enforces and encourages the natural tendency to compare oneself to others and provides multiple platforms for one to use in such comparisons (Mabe et al., 2014). It drives an addiction of self-loathing.

Societal expectations dictate that every person should have the same body size. If people do not meet that standard, all too often they are thought to be lazy and unhealthy. These attitudes saturate American homes. Parents and children alike make comments to and about one another that have the potential to damage self-esteem. Constantly belittling one another in person and through various forms of media often leads to depression and feelings of worthlessness (Mabe et al., 2014). Having one’s body image consistently torn down has been shown to be harmful to physical and mental health (Hesse-Biber et al., 2006). Depression and low self-esteem are considered to be major contributors to eating disorders. (Hess-Biber et al., 2006). Conversely, teaching children to love and accept their body seems to be vital to prevention.

Eating disorders have become more frequent in recent years
and occurrences will likely increase if nothing is done to prevent them. Across genders, races, socioeconomic statuses, and ages, eating disorders are often perilous. Much remains to be learned, and further research is necessary to examine the prevention and treatment of eating disorders. For now, the main concern ought to be analyzing the societal drive for men and women to starve themselves. There is a fatal flaw in what society has chosen to value. To prevent eating disorders, individuals must learn to reject the flawed perceptions of the diet mentality and the thin ideal. One might promote media literacy and developing healthy relationships with food, and perhaps society will begin to change for the better.

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Dialectical Behavior Therapy as a Possible Treatment Modality for Schizophrenia

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Abstract

This paper evaluates the effectiveness of dialectical behavior therapy as an additional treatment modality for schizophrenia. Schizophrenia affects approximately 1% of the world’s population and most of the individuals diagnosed with it never fully recover. Due to the severity of this disorder, it is important to discover effective treatment modalities that could aid in symptom management, such as dialectical behavior therapy. Some articles used in this review describe background information on schizophrenia and dialectical behavior therapy; the other articles describe primary research conducted using dialectical behavior therapy. This paper explains the symptoms and current treatment for schizophrenia. Likewise, dialectical behavior therapy is explained through its incorporation of the ideas of acceptance and change by using specific stages of treatment, modes of treatment, and skills training. Dialectical behavior therapy studies of an experimental or quasi-experimental nature are examined to evaluate its effectiveness on the following disorders: borderline personality disorder, substance abuse, suicidal ideation, eating disorders, attention-deficit hyperactivity disorder, depression, bipolar disorder, and antisocial personality disorder. Using the conclusions gathered from these studies, dialectical behavior therapy is proposed as a possible treatment option for those who suffer from schizophrenia.

Keywords: dialectical behavior therapy, treatment, schizophrenia
Dialectical Behavior Therapy as a Possible Treatment Modality for Schizophrenia

Schizophrenia is a debilitating disorder that is not fully understood. This disorder affects roughly 3.5 million people in the United States alone and 1.1% of the world’s populations regardless of racial, ethnic, or economic background (“About Schizophrenia,” n.d.). Yet it remains largely misunderstood by the general population. This disorder greatly impacts the lives of the people who struggle with it, as well as the families and friends of these individuals. These individuals suffer from various symptoms including hallucinations, delusions, and abnormal motor behavior (American Psychiatric Association, 2013). Roughly 75% of all diagnosed individuals never fully recover (“About Schizophrenia,” n.d.). Currently, there is no known cause for schizophrenia and therefore no cure. Nevertheless, treatments and resources include medications and psychotherapy (“Schizophrenia Treatment,” 2017). Medications reduce various physical symptoms of schizophrenia, but do not resolve problems related to lower functioning in the areas of work, interpersonal relationships, and self-care. Psychotherapy may help with these negative social and emotional effects of schizophrenia (“Schizophrenia Treatment,” 2017).

One common psychotherapy is cognitive behavior therapy (CBT) which is used to treat various mental disorders and is geared towards managing symptoms and improving quality of life. This paper suggests looking at a specific type of CBT: dialectical behavior therapy (DBT). This treatment modality leads the patient through stages or steps that begin by addressing the more severe, life-threatening behaviors of a disorder in order to improve his or her overall quality of life. This treatment modality was created in the late 1980’s through research on individuals with borderline personality disorder (Swales, 2009). Since that initial research, several other researchers have studied DBT as an effective treatment modality for many other disorders including borderline personality disorder (BPD) combined with substance abuse (Linehan et al., 1999), suicidal ideation (Pistorello, Fruzzetti, MacLane, Gallop, & Iverson, 2012), eating disorders (Telch, Agras,
DBT and Schizophrenia

& Linehan, 2001; Safer, Telch, & Agras, 2001), attention-deficit hyperactivity disorder (Hirvikoski et al., 2011; Fleming, McMahon, Moran, Peterson, & Dreessen, 2014), depression (Lynch et al., 2007; Neacsiu, Eberle, Kramer, Wiesmann, & Linehan, 2014), bipolar disorder (Goldstein et al., 2015), and antisocial personality disorder (McCann et al., 2000). In these studies, DBT was modified from its original format to specifically apply to each disorder more succinctly. Schizophrenia shares common symptoms with these disorders. However, there is no published research regarding DBT as an effective treatment modality for schizophrenia. In this paper, I will discuss schizophrenia and its current treatments, the elements of DBT, research demonstrating effective use of DBT in various psychological disorders, and the possibility of DBT as a treatment modality for schizophrenia.

Methods

Search Protocol

Articles selected were identified through PsycINFO and Scopus. In the first round of searches, the keywords were dialectical behavior therapy and schizophrenia. This produced zero results. Consequently, the keywords dialectical behavior therapy and disorder elicited 758 articles. Subsequent searches used variations of dialectical behavior therapy and any variation of certain complementary disorders I was researching, such as dialectical behavior therapy and attention-deficit hyperactivity disorder or DBT and ADHD. Later searches also included the keyword treatment to further distinguish between articles. This search produced 124 articles. From these two searches, I chose the 19 articles used in this paper.

Criteria for Inclusion

There are two types of articles included in this paper: position articles and primary research. Position articles provide background information; they consist of literature reviews, meta-analyses, and other background sources. DBT position articles were excluded if they did not provide an adequate explanation detailing the history of DBT and significant research. Schizophrenia position articles
were excluded if they did not provide symptoms and current treatment options. For primary research, the articles needed to include experimental or quasi-experimental studies in order to demonstrate the effectiveness of DBT on various disorders. There were no exclusions based on participant age, gender, or number. Each article was chosen based on noteworthy research concerning a certain disorder and its connection to DBT. In total, I included seven position articles and 12 primary research articles.

**Schizophrenia and Current Treatment**

Schizophrenia surfaces in late adolescence or in early adulthood and occurs more frequently in men than women (“Schizophrenia Treatment,” 2017). Schizophrenia tends to involve abnormalities with hallucinations, delusions, disorganized thinking or speech, and disorganized or abnormal motor behavior (American Psychiatric Association, 2013). Positive symptoms of schizophrenia are hallucinations, delusions, disorganized thinking, and agitation. Negative symptoms include affective flattening, alogia, and avolition. These symptoms contribute to distress in individuals with schizophrenia and lead to impairments in life domains (“Schizophrenia Treatment,” 2017). These individuals can experience lower functioning in areas such as work, interpersonal relationships, or self-care. No known cause of schizophrenia has been discovered, though some genetic connections have been identified (“About Schizophrenia,” n.d.). Therefore, schizophrenia can only be treated or managed, not cured.

Schizophrenia is currently treated by medication that targets physical symptoms. Nonetheless, the medication does not solve the problems that arise with lower functioning in the areas of work, interpersonal relationships, and self-care. Individuals with schizophrenia need help to learn coping skills, effective social skills, and communication skills. These skills are taught in psychotherapy. Currently, there are several group-based treatment modalities including an evidenced-based-CBT that help individuals with schizophrenia manage symptoms and increase quality of life (Orfanos, Banks, & Priebe, 2015). A team-based research
DBT and Schizophrenia approach has also demonstrated effectiveness with separate teams handling the medication, psychotherapy, case management, family support and education, and work support and education of the schizophrenia patient ("Schizophrenia Treatment," 2017).

Schizophrenia is a spectrum disorder which means that those who suffer from it can demonstrate a range of symptoms. With the range of symptoms experienced, each individual diagnosed with schizophrenia can react differently to the current treatments available. Treatments involving psychotherapies have demonstrated their usefulness in aiding reduction of symptomology. However, different types of psychotherapies result in varying degrees of success where a majority, but not all patients demonstrate improvements (Ivezić et al., 2017). Since schizophrenia contains many debilitating symptoms, any form of medication and therapy that can aid in better functioning for these individuals is valuable to pursue. Because some individuals may not respond well to current treatments, it would be advantageous to find another treatment modality that is effective for managing the symptoms of schizophrenia and providing an opportunity for a better quality of life.

Dialectical Behavior Therapy

As mentioned, DBT is a type of CBT that is built upon three foundations: behavioral science, Zen, and dialectics (Neacsu, Ward-Ciesielski, & Linehan, 2012). Marsha M. Linehan, the creator of DBT, originally attempted to adapt behavioral therapy to clients experiencing borderline personality disorder. In therapy, she incorporated strategies of change to help the clients improve. Yet, she noticed that the clients had several difficulties with the treatment, including not performing agreed-upon homework assignments and not returning for appointments (Swales, 2009). Linehan hypothesized that her clients behaved in this manner because they felt the change-centered treatment was invalidating because clients felt they were unable to change. In other words, the treatment was ineffective due to a lack of client acceptance.
Acceptance is emphasized in Zen philosophy, based on a type of Buddhism. Zen followers are encouraged to release ideas of what they believe reality should be like and find acceptance, self-validation, and tolerance (Neacsiu et al., 2012). Thus, the practice of acceptance emphasizes focusing on the current moment, acknowledging reality, and accepting reality. Clients are encouraged to accept themselves as they are and tolerate the difficult experiences they are undergoing. Because change and acceptance are opposing philosophies, a dialectical approach is needed.

A dialectical worldview creates an emphasis on the whole and describes the whole as complex, inter-related, and composed of opposites (Swales, 2009). It is important to synthesize these opposites. The dialectical approach ascribes a balance between the acceptance needed to allow hope in the ability to change, and the change necessary to improve a given situation. The therapist must balance with the client, pushing for acceptance or change when necessary. Consequently, the clients see how the systems in themselves interact and how they in turn interact with their environments.

Stages of Treatment

DBT utilizes four stages of treatment. These stages are defined by the severity of the client’s behavior. The therapist works with the client to achieve goals in each stage to progress towards the life the client wants (Neacsiu et al., 2012; Swales, 2009). In Stage I, the client is demonstrating out-of-control behavior, such as life-threatening behaviors, therapy-interfering behaviors, and severe quality-of-life-interfering behaviors. The goal of Stage I is for the client to control severely dysfunctional actions. In Stage II, the client controls those behaviors, but suffers from the inability to experience emotion, perhaps due to past trauma or invalidation. The goal of Stage II is for the client to experience emotions without experiencing trauma. In Stage III, the client synthesizes the previous stages and overcomes quality-of-life-interfering behaviors (such as low mood in depressed patients) through developing self-respect,
defining goals, and raising feelings of peace and happiness. The goal of Stage III is for the client to lead a life of ordinary joy and sadness. In Stage IV, the client focuses on resolving a feeling of incompleteness. The goal of Stage IV is for the client to move from a sense of incompleteness to a life of ongoing experiences. The client may enter treatment at any stage and move forward or backward through the stages.

**Modes of Treatment**

In its complete form, DBT contains four modes of treatment: skills training group, individual therapy, phone coaching, and the therapist consultation team (Neacsiu et al., 2012; Swales, 2009). The skills training group focuses on enhancing the clients’ capabilities by teaching them behavioral skills. Individual therapy focuses on enhancing client motivation through helping the clients apply the skills taught to specific events and circumstances. Phone coaching is how the therapist provides in-the-moment consultation to help with relevant situations. The therapist consultation team is intended to provide support for the therapists and group leaders. This team helps to keep the treatment providers motivated and competent to perform DBT.

**Skills Taught in DBT**

Through these modes of treatment, DBT teaches four skills: mindfulness, distress tolerance, interpersonal effectiveness, and emotion regulation (Neacsiu et al., 2012; Swales, 2009). Mindfulness is the practice of being fully aware in the moment and observing the situation in a non-judgmental fashion. Distress tolerance teaches impulse control and self-soothing techniques while learning to tolerate discomfort in difficult situations. Interpersonal effectiveness teaches the clients to be assertive while maintaining relationships and self-respect. Emotion regulation teaches strategies for changing unwanted emotions. A standard DBT treatment program uses all of the modes of treatment and the various DBT stages and skills needed for the particular client.
DBT Research

Originally, DBT was created by Marsha M. Linehan to treat adult women with borderline personality disorder (BPD) and histories of chronic suicidal behavior (Swales, 2009). Linehan, Armstrong, Suarez, Allmon, and Heard (1991) conducted the first randomized clinical trial to evaluate the effectiveness of DBT with chronically parasuicidal women who met the criteria for BPD. BPD is characterized by an impairment in self and interpersonal functioning, negative affectivity, disinhibition, and antagonism (American Psychiatric Association, 2013). Parasuicidal behavior, or intentional self-injuring behavior, is common in individuals with BPD (Linehan et al., 1991). The participants in this study were women between the ages of 18 and 45 years old who had been diagnosed with BPD and demonstrated two parasuicidal episodes in the last five years with one in the last eight weeks. There were two groups: a standard DBT treatment group and a treatment-as-usual (TAU) group. The treatment lasted for one year with assessments every four months. Linehan and her colleagues found that the participants who received DBT had fewer parasuicidal events with less medically severe parasuicidal injuries, were more likely to stay in individual therapy, and experienced fewer inpatient psychiatric days than the participants in the TAU group.

DBT continues to be utilized in treating BPD and researchers have continued to study the effectiveness of DBT. Linehan et al. (2006) conducted a more rigorous study than previous trials. These participants were also women between the ages of 18 and 45 years old who were diagnosed with BPD and demonstrated two parasuicidal episodes in the last five years with one in the last eight weeks. In this trial, however, the participants were separated into two different groups: a standard DBT group and a community treatment by experts group (CTBE). The treatment lasted a year, with regular assessments. At the follow-up a year later, those in the DBT treatment group were less likely to attempt suicide, had less hospitalization for suicidal ideation, and had a lower medical risk than the CTBE group. The individuals in the DBT group were also less likely to leave treatment and had fewer psychiatric
hospitalizations and psychiatric emergency visits. These studies demonstrate the effectiveness of DBT on regular or community treatments which provide optimistic proposals for its use with other disorders. Since this time, further research has been conducted on DBT in relation to its effectiveness in treating other disorders. If DBT can be a more effective treatment for other disorders, there is the possibility it could have the same results with schizophrenia, which shares similar symptomology with other disorders. The following studies demonstrate the efficacy of DBT as a treatment modality for various disorders.

**Borderline Personality Disorder with Substance Abuse and Suicidal Ideation**

Several studies furthered this research by testing DBT on individuals with BPD and another predominant disorder, such as substance abuse. Individuals with BPD are more likely to experience substance abuse and have higher rates of psychiatric problems compared to those who have a substance abuse problem with no personality disorder (Linehan et al., 1999). DBT treatment can be modified to help target these issues by including skills such as mindfulness. Linehan et al. (1999) executed a study to see how effective DBT is on people with BPD and substance abuse. These researchers used a randomized controlled trial with the participants divided among a standard DBT treatment group, with small alterations to focus on the substance abuse, and a treatment as usual (TAU) group, where previous or standard substance abuse guidance was given. At the six-month follow-up, Linehan et al. (1999) concluded that DBT was superior to TAU in reduction of substance abuse, completion of treatment, and improvements in social and global adjustment. This study demonstrates the efficacy of applying DBT to other disorders such as substance abuse and suggests that DBT could be effective if expanded from its original form of BPD treatment to target other disorders.

Moreover, DBT has also been used to treat suicidal ideation that can come as a result of BPD. People who are suicidal often experience a suicide attempt (SA) or non-suicidal self-injury.
Pistorello et al. (2012) performed a randomized controlled trial comparing the effectiveness of DBT to an optimized TAU. They focused on a population that had not been researched previously—college aged males and females who normally show higher levels of suicidal ideation. To qualify for the study, each participant had to be suicidal at baseline, have at least one SA or NSSI, and meet at least three BPD diagnostic criteria. The participants were split into two groups: a slightly altered DBT treatment group and a TAU group. Both treatments lasted 7-12 months and participants had regular assessments throughout the treatment. After the six-month follow-up assessment, Pistorello et al. (2012) concluded that the clients participating in DBT showed greater decreases in suicidality, depression, number of NSSI events (if applicable), BPD criteria, psychotropic medication use, and significantly greater improvements in social adjustment than the optimized TAU. Through the adaption of DBT to target specific symptoms, these patients were aided in achieving a better quality of life. Schizophrenics who also demonstrate emotional dysregulation and a problem with self and interpersonal functioning could likewise achieve a greater quality of life.

Eating Disorders

Additionally, DBT has been found useful in the treatment of eating disorders, such as bulimia nervosa and binge eating disorders. People with eating disorders are characterized by a low energy intake, fear of gaining weight or being fat, and disturbance in the way body weight or shape is experienced (American Psychiatric Association, 2013). Eating disorders are associated with negative affect; thus, people experiencing these eating disorders are thought to have trouble regulating their emotions (Safer et al., 2001; Telch et al., 2001). The DBT skills of mindfulness, emotion regulation, and distress tolerance specifically target the symptoms or causes of eating disorders.

Telch et al. (2001) and Safer et al. (2001) conducted separate randomized controlled trials that evaluated DBT as a treatment for eating disorders. Telch et al. (2001) tested women with a binge
eating disorder (BED) in a 20-week DBT skills group (N=44). Half of the women were placed in the treatment group and the other half were put on a waitlist. After the initial treatment was finished, 89% of the treatment group were abstinent (no binge episode for four weeks) compared to the 12.5% of the control group. After the six-month follow-up, 56% remained abstinent. Safer et al. (2001) reported similar findings with a 20-week DBT skills group trial concerning women who previously experienced at least one binge or purge episode per week (N=31). They found that 28.6% of the participants in DBT were abstinent compared to zero participants from the control group and an additional 35.7% of the DBT participants reduced their episodes by 88%. Each study modified the DBT treatment to train skills needed to cope with an eating disorder, such as emotion regulation. Both studies used relatively small sample sizes, and DBT was compared to no treatment whatsoever, which could overstate the results from these studies. Yet, modified DBT demonstrated a positive effect on individuals with eating disorders through the skills training.

**Attention-deficit Hyperactivity Disorder**

DBT has also been modified to successfully help those with attention-deficit hyperactivity disorder (ADHD). ADHD is a pattern of inattention and/or hyperactivity/impulsivity that restricts development or functioning in several settings and negatively influences occupational or social functioning (American Psychiatric Association, 2013). In certain situations, known treatments for ADHD, such as medication, do not effectively work for some individuals (Fleming et al., 2014; Hirvikoski et al., 2011). Hirvikoski et al. (2011) tested the feasibility, acceptability, and efficacy of DBT on individuals with ADHD. Their randomized controlled study compared a 14-week DBT skills group and a semi-structured discussion group. They found a significant reduction in ADHD symptoms in the DBT group, but not in the control group. Similarly, Fleming et al. (2014) also tested the feasibility, acceptability, and efficacy of DBT on individuals with ADHD; however, their study had a narrower focus on college students with an 8-week DBT skills...
group and a control group given self-help handouts. Nevertheless, Fleming et al. (2014) reported the DBT group as having a greater treatment response rate, clinical recovery rate on ADHD symptoms and executive functioning, and amelioration on quality of life. Both studies demonstrated key improvements in positive skills and reductions in ADHD symptoms that point towards the use of DBT being effective in this treatment area.

**Depression and High Emotion Dysregulation**

DBT was also adapted to treat depression and high emotion dysregulation. Depressive disorders are usually characterized by a sad, empty mood with physical and cognitive changes that affect the person’s ability to function (American Psychiatric Association, 2013). The treatments for depression are usually medication, psychotherapy, and various improvements to physical health. Mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness in DBT target the emotional symptoms related to personal functioning. Lynch et al. (2007) conducted two randomly controlled studies to determine the efficacy of implementing DBT to treat individuals with a personality disorder and co-morbid depression. The first study was a pilot study to determine the feasibility of utilizing both DBT and medication in older adults (age 60+) with depression. Lynch et al. (2007) separated 34 depressed adults into a group receiving standard DBT therapy with medication or a group receiving medication alone. The study lasted 28 weeks and resulted in higher rates of remission for the participants in the DBT and medication group versus the medication alone group.

The next study demonstrated similar findings. For this study, participants (age 55+) qualified if they had major depressive disorder and a personality disorder. The researchers separated the participants into two groups: a DBT and medication group and a medication alone group. The DBT treatment was comprehensive, lasted six months, and adapted for behaviors related to depression and coping. After the follow-up, the DBT and medication group achieved remission from major depressive disorder faster than the
medication group, while maintaining higher gains in interpersonal sensitivity and interpersonal aggression. These studies exhibited a narrow, specific population, yet they demonstrate that DBT can be adapted to aid in depressive disorders. These studies also suggest that DBT in addition to medication may be more effective than medication alone in treating certain disorders. DBT could be adapted and used in combined treatments to further the effectiveness of a treatment program.

Similarly, Neacsiu et al. (2014) conducted a randomized control trial that specifically targeted a symptom of several disorders: high emotion dysregulation, or the inability to control or regulate emotions. This symptom can be found in many mood and anxiety disorders (Neacsiu et al., 2014). In early studies, it was established that DBT could help individuals with BPD in regulating their emotions because emotion regulation is a specific DBT skill (Swales, 2009). Neacsiu et al. (2014) expanded this idea to emotion dysregulation in general. The participants in this study were men and women, over the age of 18, with high emotion dysregulation and one current depressive or anxiety disorder. The researchers assigned the participants to a DBT group or an activity-based support group (ASG). After the 16-week program and six-month follow-up, Neacsiu et al. (2014) concluded that DBT was superior to ASG in reducing emotion dysregulation. Likewise, DBT showed a quicker treatment response and faster reduction of anxiety; however, DBT and ASG were similar in reducing depression. This study suggests that DBT can be applied not only to a specific disorder, but also to relative symptoms of various disorders.

**Bipolar Disorders**

Likewise, bipolar disorders has been responsive to an altered form of DBT. Bipolar disorders are characterized by mood swings of high energy and feelings of sadness (American Psychiatric Association, 2013). Again, emotion dysregulation plays a key role in bipolar disorder and DBT helps target these symptoms through skills teaching. Goldstein et al. (2015) conducted a randomized controlled pilot study to determine if DBT could indeed be
beneficial for those with bipolar disorder. The participants consisted of 20 young women and young men between the ages of 12 and 18. The researchers established a DBT group and a psychosocial TAU, with both groups receiving medication. The treatment involved one year of comprehensive DBT with tapered treatments sessions after six months. After the 12-month follow-up, DBT was better at reducing depressive symptoms and suicidal ideation. Also, DBT significantly reduced mania symptoms and emotion dysregulation and TAU did not. Though this study involved a small number of participants, it encourages the idea that DBT can be adapted to more severe disorders, such as bipolar disorder. DBT assisted in the reduction of various symptoms of this disorder, potentially affecting the participants’ quality of life.

**Antisocial Personality Disorder**

Furthermore, DBT has been used to treat antisocial personality disorder. Antisocial personality disorder (ASPD) is characterized by impairments in self-functioning, such as identity and self-direction, and impairments in interpersonal functioning, such as empathy and intimacy (American Psychiatric Association, 2013). The DBT skills of mindfulness and interpersonal effectiveness could be used to help these symptoms in ASPD. For example, McCann et al. (2000) performed a quasi-experimental study comparing DBT and TAU (characterized by individualized supportive care) over a 20-month period. This study is quite different than the previous studies because it does not involve the general population of outpatients. The patients in this study were forensic inpatients, primarily male, most had committed violent crimes, 50% had BPD, and 50% had ASPD. Researchers used DBT individual therapy, group skills, and skills coaching in a modified version to target the needs of these patients. In comparison to the TAU group, the DBT group had a significant decrease in depressed and hostile mood, paranoia, and psychotic behaviors. DBT also showed a decrease in maladaptive interpersonal coping skills and an increase in adaptive interpersonal coping skills. This study suggests that DBT can be an effective treatment modality in disorders that purport
life-threatening behaviors. A DBT treatment program helps the individual to modifying critically dangerous behaviors and teaches skills that can improve quality of life. Perhaps DBT can be adapted to treat the severe symptoms of schizophrenia such as hallucinations, delusions, disorganized thinking, and agitation. These symptoms could be addressed in the same fashion as this study with individual therapy, group skills, and skills coaching, which could hopefully lead to similar decreases in depressed and hostile mood, paranoia, and psychotic behaviors.

**Synthesis**

Through this research, we can see that DBT has been altered in many ways from its original form to target the needs of various disorders. Researches have added a substance abuse component to treatment for BPD with substance abuse (Linehan et al., 1999), specific skills in DBT necessary to cope with eating disorders (Safer et al., 2001), and medication in the DBT treatment for depression (Lynch et al., 2007). With each additional disorder a focus was created to specifically target that disorder’s symptoms. Each of the disorders previously discussed range from moderate to severe. Though they do not have a cure, each disorder responded well to a DBT treatment plan that was targeted to treat its specific symptoms. The skills treatment seemed effective in helping participants learn how to better handle their symptoms to lead to a more functional life style. Collectively, these disorders contain some of the same symptoms and effects of schizophrenia, specifically emotion dysregulation, impulsivity, maladaptive interpersonal coping skills, and impairments of self and social functioning.

**Discussion**

Schizophrenia shares many of the same symptoms as the disorders previously mentioned. Each of these studies contained an altered form of DBT that focused on the symptoms of that specific disorder. DBT could similarly be altered to manage the symptoms of schizophrenia and increase the quality of life of those who suffer from it. Individuals with schizophrenia could benefit
from learning the DBT skills of mindfulness, distress tolerance, interpersonal effectiveness, and emotion regulation. Similar to those individuals with BPD (Linehan et al., 1999), mindfulness could help individuals with schizophrenia focus on the current moment in a non-judgmental fashion. This skill could help in moments when they are experiencing hallucinations and delusions. They can be taught to focus on reality and live in the moment. Distress tolerance might help these individuals learn impulse control and how to self-soothe during painful situations, similar to the studies on ADHD (Fleming et al., 2014; Hirvikoski et al., 2011) and ASPD (McCann et al., 2000). Interpersonal effectiveness could teach schizophrenics to better interact with others. In addition, emotion regulation would help those with schizophrenia change their unwanted emotions to improve their outlook on life, like those with BPD (Linehan et al., 1999), suicidal ideation (Pistorello et al., 2012), eating disorders (Telch et al., 2001), ADHD (Fleming et al., 2014; Hirvikoski et al., 2011), depression (Lynch et al., 2007; Neacsiu et al., 2014), and bipolar disorder (Goldstein et al., 2015). A DBT treatment plan may focus those with schizophrenia on the life-threatening behaviors at first. These individuals could use medication in collaboration with the psychotherapy. As therapy progressed, the therapist would guide the client through the DBT stages to teach the clients how to improve their quality of life. Future research should be performed to study DBT as an effective treatment modality for schizophrenia.

Limitations

However, there are some limitations with this analysis. There is a large amount of research currently being undertaken to study the efficacy of DBT as a treatment modality for several disorders. It is possible that there is current research being conducted studying DBT as a possible treatment for schizophrenia. Any results from studies not currently published would influence the conclusions of this analysis. Likewise, there may be additional research that contains more information on DBT in other databases or languages other than English. Also, finding participants for this kind of research could prove difficult due to the range of which
Schizophrenia is experienced. Schizophrenia has been a difficult mental illness to treat, so this disorder may not react the same way to DBT as other disorders have.

**Conclusion**

It appears that DBT could be a possible treatment modality for schizophrenia. Several studies have supported the efficacy of DBT. In the future, it may be necessary to address larger populations to test DBT in a more effective manner. Continued research on the efficacy of DBT in general will support the idea of DBT as a beneficial treatment modality. After this, studies can be conducted using DBT as a treatment for schizophrenia. This type of research could help future therapists more effectively aid their clients in learning the skills necessary to improve self and interpersonal functioning. If DBT is an effective treatment modality for schizophrenia, individuals with schizophrenia could experience an increase in management of their symptoms and receive an increase in quality of life.

**References**


Abstract

This literature review explores the ways dance movement therapy can treat post-traumatic stress disorder, or PTSD. By analyzing and synthesizing the current literature on the relationship between the two, we can more clearly understand how dance movement therapy can treat PTSD, as well as where more research is needed. Looking closer at the ways dance movement therapy relieves symptoms of PTSD allows its effectiveness to be evaluated. Thus far we have seen many advantages to dance movement therapy, including its inherent connection to the body, how well it works with other therapies, its non-goal-oriented and accepting nature, and its capability for helping patients develop effective coping skills (Levine, 2016; Wiedenhofer, 2017; Dosamantes-Beaudry, 1997). The findings and observations from the studies included in this literature review support dance movement therapy as an effective form of treatment for PTSD when used alone or with other more widely available treatments.

Keywords: Dance movement therapy, DMT, post-traumatic stress disorder, PTSD, PTSD treatment, dance therapy, movement therapy
Moving On: An Investigation of Dance Movement Therapy in PTSD Treatment

The room seems to breathe as the men and women around the large studio reach up with a collective inhale and then let their torsos collapse and stretch down with a large exhale. These breaths are directed by the therapist walking around the room. As she passes each man or woman, she might reach up and pull their fingers higher to encourage a fuller inhale or press lightly on their back to help them release their back muscles more completely through their exhale. Once warmed up and more aware of how their bodies are feeling that day, the group talks about what they would like to address in this session, such as boundaries or vulnerability. The therapist facilitates this discussion and works with the group to identify an appropriate theme for the session. She then guides the men and women into another physical exercise which she knows can benefit her clients in their recoveries. These men and women all suffer from post-traumatic stress disorder (PTSD) and are utilizing dance movement therapy sessions as part of their treatment. They are all here to dance, heal, and grow through this form of therapy.

Ruth St. Denis once said, “I see dance being used as communication between body and soul, to express what is too deep to find for words” (Sarkis, 2012). This description was intended for dance in general, but perfectly illustrates how dance movement therapy works; the body and the mind are used together to heal psychological wounds while helping the patient develop new coping skills. This is accomplished as patients participate in various exercises involving both movement and psychological processing, such as mirroring movement, creating choreography based on their experiences, and practicing mindfulness of their bodies during movement. Dance movement therapy is used to treat many different mental illnesses, but has been shown to possibly be especially helpful in treating post-traumatic stress disorder, or PTSD, due to its often-somatic elements (Levine, 2016).

War, abuse, natural disasters, neglect, accidents, and many other traumas can cause PTSD (American Psychiatric Association, 2013). It affects individuals of every race, gender, age, social-
economic position, and faith, although veterans are at higher risk for developing PTSD (McKinney, Hirsch, & Britton, 2017). Those affected by this disorder often seek out treatment for their illness, but might find some treatments to be personally ineffective. However, there are plenty of good, reliable, and tested treatments for PTSD, including dance movement therapy. To establish and better understand how dance movement therapy can be used in the PTSD treatment process, the existing literature on this topic has been gathered, analyzed, and interpreted in relevant terms. Dance movement therapy could be an effective form of treatment for PTSD when used on its own or in addition to other more common therapies because of its inherent connection to the body, how well it works with these other therapies, its inherent accepting nature, and its capability for helping patients develop effective coping skills (Levine, 2016; Wiedenhofer, 2017; Dosamantes-Beaudry, 1997).

**Dance Movement Therapy and PTSD: A Brief Overview**

Dance movement therapy is a recently developed treatment for diverse disorders. However, Ritter and Low (1996) remind us that the use of dance as a form of therapy existed thousands of years before becoming a formal treatment option. They also explain that the connection between kinesthetic action and the mind forms the basis on which dance movement therapy was originally created. Now, thanks to that approach, dance movement therapy offers customizable and patient-specific treatment to many, including those affected by eating disorders, depression, autism, and PTSD. One example of how dance movement therapy works in a biological sense is the mirror neuron theory. Berrol explores this theory, which describes mirror neurons’ role in the development of empathy, as well as how they contribute to the therapeutic benefits of dance movement therapy. When performing kinesthetic exercises which mirror another’s physical actions, these neurons activate, mimicking genuine empathy and increasing one’s ability to experience that emotion (Berrol, 2006). In this study, the relationship between mirror neurons, empathy, and the therapeutic process is shown to be effective in treating a range of psychological disorders,
including PTSD. This finding suggests that empathy and emotional connection are essential to mental health. Dance movement therapy employs various other theories, and consequently, has become increasingly popular as a treatment for mental illness.

PTSD, as noted before, affects many populations. This disorder’s symptoms can include—but are not limited to—distressing and intrusive memories of the trauma, upsetting dreams involving the trauma, flashbacks, and negative or dysfunctional reactions to triggering events (American Psychiatric Association, 2013). The American Psychiatric Association (2013) also states that PTSD can be caused by “exposure to actual or threatened death, serious injury, or sexual violation.” The harm done by these traumatic experiences to the mental health of victims is severe, putting them at greater risk for depression, anxiety disorders, substance abuse, social and relational dysfunction, and suicide attempts (McKinney, Hirsch, & Britton, 2017). In order to treat the dysfunctional, distressing, and deviant symptoms of an individual with PTSD, professionals in the mental healthcare field must be educated regarding the effective options for treatment. Dance movement therapy is an effective treatment option, and as it continues to become more readily available to patients, more and more populations will be able to achieve healing and health after living in dysfunction and pain.

**Non-Goal-Oriented Treatment**

Dance movement therapy, when open to the development of adaptive and healthy behaviors in any way that could benefit patients, can help them grow and heal in ways other therapies might not. This is applicable to PTSD treatment in that this kind of therapy can be based in non-goal-oriented terms after other goal-oriented milestones have been achieved. First, as Westerman (2017) demonstrates in his study on retelling trauma, the actual relationship with the trauma must be addressed so that it no longer causes the crisis levels of distress characteristic of PTSD triggers. Westerman (2017) demonstrates in his study of verbal retelling that this can be done by repetitively expressing the traumatic
experience through the form of spoken words, although the same result could possibly be obtained through written words, drawings, or movement. There is a clear end goal for a patient retelling a traumatic event in order to decrease the negative feelings which can prevent that patient from making more therapeutic progress. Once the distress of that memory has faded through exposure and the immediate threat of crisis has been resolved, then more work can be done with underlying issues behind the PTSD. Wiedenhofer (2017) revealed that non-goal-oriented dance movement therapy is more effective in decreasing stress and improving body self-efficacy than goal oriented dance movement therapy. This could be because it allows for an accepting environment and open-minded approach to healing. Adding to this finding, Fischman (2016) claims that implicit experiences during dance movement therapy can have a significant impact on patients participating in the session. Fischman (2016) came to this conclusion after seeing patients express emotions they were not explicitly aware of, and healing through that experience. If these patients had participated in a strictly goal-oriented treatment process, they might have never been able to address these emotions. These conclusions show us that when the treatment process possesses an openness to human implicit experience, the patient can often achieve overall improvement in his or her symptoms. In addition to alleviating the immediate problem, this helps prevent future issues that might not otherwise have been addressed. Dance movement therapy, when accepting of diverse ways to achieve healing, gives patients a renewed sense of purpose, an environment they feel safe and accepted in, and a place to develop new abilities, all of which allow them to recover and ultimately stay in recovery.

**Dance Movement Therapy and Psychotherapy: How They Work Together**

Dance movement therapy can effectively supplement psychotherapy in traditional treatment settings. It aids in PTSD therapy by resolving the issues processed in psychotherapy in a different, kinesthetic way (Levine, 2016). Psychotherapy, in turn, can help process issues found in explorative dance movement
Levine (2016) conducted a meta-synthesis of nine different studies about qualitative findings on dance movement therapy and PTSD. This meta-synthesis suggests that the reestablishment of connections between mind, body, and brain help to heal symptoms of PTSD. These findings seem to make sense, as dance movement therapy exercises and experiences are often built around a ground-up approach to treatment with integrative and connective practices (Pierce, 2014). This means that dance movement therapy treats the root of the problem first, identified by Pierce (2014) as disconnected kinesthetic, emotional, and cognitive experiences. In addition to the benefits of a ground-up approach, when psychotherapy and dance movement therapy are combined in trauma treatment, patients generally respond better and experience lesser symptoms than patients who receive only one kind of therapy (Colace, 2017). A combination of different therapies is often helpful, even if those therapies do not include dance movement therapy. Those who participate in dance movement therapy in addition to psychotherapy as treatment for trauma not only receive further specialized care, but also get a more well-rounded approach to healing through both the body and mind. Those who are able to treat their illness from multiple perspectives are able to treat its many different characteristics, which might not be so apparent from a single therapy’s immediate approach.

The combination of dance movement therapy and psychotherapy is effective for the initial treatment of PTSD and for preventing relapse later on, as a more diverse treatment results in a more complete healing (Colace, 2017). When professionals work together in order to provide a more comprehensive treatment plan that includes different types of therapy, individuals suffering from PTSD can receive more effective and long-lasting results (Colace, 2017). In turn, these results give these individuals better quality of life, greater self-efficacy, and new skills to use in future crises.

A Forward-Thinking Approach

PTSD treatment requires a broader look at what the patient needs in the future rather than only the riddance of dysfunctional
symptoms in the present, just as it needs a multifaceted approach to healing to fully treat the disorder (Barlow, 2017). Dance movement therapy gives multiple applicable tools to patients looking for long-term recovery and renewed quality of life after trauma. Just a few of these tools include interpersonal skills, self-awareness, emotion regulation efficiency, and self-compassion (Dosamantes-Beaudry, 1997). Barlow (2017) demonstrates that a lack of these skills plays a vital role in the development and continuance of PTSD symptoms. Barlow’s study focused on college students, but the findings are consistent throughout other populations as well. In the 466 students studied, self-awareness, emotion regulation efficiency, and self-compassion were strongly negatively correlated with PTSD symptoms. These results point to not only the characteristics of those affected by PTSD, but the factors which make healthy individuals more susceptible to developing the disorder. This means that possessing strong self-awareness, emotion regulation efficiency, and self-compassion generally makes one less likely to develop PTSD after experiencing a traumatic event. Because dance movement therapy specializes in ways different than other therapies in the development of these adaptive and healthy attributes, it is often a great addition to PTSD treatment. With strengthened interpersonal skills, increased self-awareness, better emotion regulation efficiency, and improved self-compassion, individuals who suffer from PTSD can find freedom from their disorder while possibly enjoying more out of life than they had before their mental illness began. Equipping patients with life skills can help ensure more complete wellness throughout and after treatment.

Discussion

Summary

Dance movement therapy has many strengths and dynamic qualities that have been analyzed and explained in their relation to recovery from PTSD. A few explorative studies have been conducted and research done on exactly how dance movement therapy benefits those suffering from PTSD. The current literature
previously presented supports the idea that dance movement therapy is effective in treating PTSD when combined with other therapies.

The studies highlighted in this literature review support many ideas about the relationship between dance movement therapy and PTSD. One relationship between dance movement therapy and PTSD treatment which was not explicitly explored by the current literature is the possibility that the kinesthetic qualities found in dance movement therapy are the reason it is so effective when included in PTSD treatment. Because trauma often involves a physical threat of danger or death, it can often be categorized as a kinesthetic experience in addition to a psychological one. When one has a physical ailment, one’s body is physically treated with medicine. When one suffers from mental illness, he or she goes to counseling and works through issues psychologically. Perhaps when someone experiences a trauma in a kinesthetic way, or through the physical senses, he or she should be treated in a way parallel to that experience as well. Of course, psychological stress is a symptom of PTSD and should be treated through some kind of psychotherapy, which focuses on the mental aspects of the psychological disorder. These studies, however, have shown that the kinesthetic qualities found in dance movement therapy might be the key to its success when working with PTSD.

Gaps in the Literature

The current literature discussing dance movement therapy in the treatment of PTSD includes gaps where additional research can be done on the relationship between the two. A few of these gaps include the lack of empirical and controlled-study research on dance movement therapy; the absence of literature on the effectiveness of various dance movement therapy exercises and practices on different mental disorders; and the deficiency of information on types of populations participating in dance movement therapy and the effects that therapy might have on these populations. PTSD treatment could greatly benefit from knowing what kinds of victim populations respond best to dance movement
therapy. With this information, professionals could make a more informed opinion on whom to refer to dance movement therapy as opposed to other therapy types and what kind of dance movement therapy (for example, one-on-one, group, improvisational, abstract, or literal) might be most effective for that individual.

Limitations

A few limitations which currently exist in the literature presented include: the lack of information on diverse populations and the effectiveness of dance movement therapy for them; the absence of studies done on large groups of people involved in dance movement therapy; and the deficiency of in-depth explanations in studies of which dance movement therapy practices were used. Additionally, I used only two databases, which limits the scope of an already narrow search. A possible critique for this literature review might include the belief that only certain populations are able to benefit from dance movement therapy, namely, younger women and children. However, the only factor which affects one’s ability to participate in dance movement therapy as a treatment option is the presence of willingness, openness, and vulnerability in his or her involvement. However, populations which are generally stereotyped as being “tough” or “emotionless” often need a place to learn how to express what they are going through in their own ways. In this sense, dance movement therapy could be more beneficial for these people because it could teach them skills they otherwise would not have known were healthy for them to possess. Having concrete research done on these kinds of populations would benefit everyone involved, from therapists to patients. With empirical evidence to back up my inferences from the research presented, harmful stereotypes and marginalization could be reduced and better understood by the public and professionals alike.

Implications

From the findings presented in this literature review, one can conclude that other therapies could be altered to become more fluid and accepting like dance movement therapy. Because
dance movement therapy’s success in PTSD treatment can be largely attributed to its partially implicit nature, we can take that knowledge and apply it to other therapies, which might better serve different populations (Fischman, 2016). In fact, a few therapies have already been developed with this concept in mind, such as Acceptance and Commitment Therapy (ACT) or even other recreation therapies such as art or music therapy. These types of treatment have enjoyed success because of their similarly open-minded and non-judgmental characteristics. This being said, therapies can also be successful when deliberately planned out, depending on the kind of patient being treated and their specific needs.

The findings presented here can help professionals treating patients with PTSD by giving them another treatment option when and if other methods might not be working as well as initially hoped. As explained here, dance movement therapy has been proven to be effective in numerous populations which suffer from PTSD, such as sexual trauma victims, natural disaster survivors, and veterans (Barlow, 2017; American Psychiatric Association, 2013; McKinney, Hirsch, & Britton, 2017). Because of this, professionals can more confidently prescribe dance movement therapy as a first option to specific patients beginning treatment. Once mental healthcare professionals work with dance movement therapists in greater frequency and better understand the effectiveness and methods of dance movement therapy, more individuals suffering from PTSD can receive comprehensive and individualized care for their mental illness. Doing so improves the chances of recovery for those suffering while increasing the options for professionals who feel their patients need something in addition to the treatment they can provide.

Conclusion

Dance movement therapy has been established as a viable treatment for individuals suffering from PTSD. This relatively new therapy type may seem “fluffy” or unsupported by current knowledge about therapy to the uneducated in the field. However,
this literature review demonstrates that there is established, trustworthy, peer-reviewed information which supports dance movement therapy as a PTSD treatment. In fact, the current literature on dance movement therapy’s effectiveness in PTSD treatment points to its differences from more common treatments as its biggest strengths. Patients who have not found the kind of results they hope for in their current treatments have another option—dance movement therapy. Giving individuals who suffer from PTSD another viable option to utilize in their personal treatment gives them another chance at healing and hope. Professionals with the ability to provide this should be aware and educated on the many types of effective treatments available to their patients, including dance movement therapy.

References


Social Media Use Among College Students and its Contribution to Depression

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Abstract

Social media is becoming a more ubiquitous method of communication and interaction in society than in the past, especially among college students. This study seeks to understand how content related to themes of Friends, Couples, Personal Achievement, and Accidents on social media contributes to depressive feelings among currently enrolled students. In an electronic survey, 92 participants \( n = 92 \) responded to 9 questions from the Beck Depression Inventory (BDI) in reaction to Facebook posts under the themes of Friends, Couples, Personal Achievement, and Accidents. A repeated-measures ANOVA was used and demonstrated that social media posts do affect feelings of sadness and discontent, especially in the thematic areas of Couples and Personal Achievement for college students. Statistical analysis also revealed that the thematic areas of Friends and Accidents were as similar in their depressive effects as the thematic areas of Couples and Personal Achievement. Results advocate that more research is needed on how specific themes of social-media posts affect depression levels in college students.
Social Media Use Among College Students and Its Contribution to Depression

Consistently checking Facebook, updating Snapchat stories, and adding new photos on Instagram seem to be consistent habits of society today. Using these various forms of social media is a new medium for people to promote their self-images and keep others updated on their lives. This trend has become significantly common among young adults and adolescents (Cavazos-Rehg et al., 2016) that an estimated 90% are on some form of social media (Duggan & Smith, 2013). Another norm for many societies during this time is young adults attending places of higher education at universities and colleges (Seibert, Kraimer, Holtom, & Pierotti, 2013). Many attend universities as undergraduates and graduates with the hopes of furthering their educations and working toward specific career goals (Seibert et al., 2013).

Although driven by a plethora of motives like future careers, desires to succeed, and life-long dreams, college students face many difficulties as they adjust to new academic climates and prepare to make large life-decisions that will affect their futures. Unlike their idealized and picturesque portrayals of themselves online (Tandoc, Ferrucci, & Duffy, 2015), they must juggle attending classes, working to pay for living expenses, worrying about taking care of themselves physically, studying for tests, and making time for recreational and social time. With the onslaught of these and many other trials, some students may become overwhelmed and depressed by their situations. In fact, Schnetzer, Schulenberg, and Buchanan (2013) found that 30% of college students have exhibited signs of serious depressive symptoms that significantly affect normal social, physical, and psychological functioning.

In this day, the use of social media to connect and communicate with friends has become a large phenomenon throughout the entire world. Among these users, 90% of young adults have been found using social media on a daily basis, anywhere from a few minutes to multiple hours (Lin et al., 2016). For many college students, most of their past-time can be seen as using social media in varying forms like Instagram, Pinterest, Facebook, and Twitter.
Although it is seemingly harmless, Zhang et al. (2014) found that students who engaged in large amounts of these kinds of activities were more dissatisfied with their lives and depressed than those who played sports or were involved in other interactive activities. Understanding the role that social media plays in the psyche of college students could help researchers find and understand an etiology behind the depressive symptoms beleaguering college students.

**Previous Research**

The amount of depressed college students throughout the United States has become a factor of concern among researchers and universities. Moreno et al. (2012) found that 56% of students attending college experience symptoms of depression, which can in turn lead to serious maladaptive habits like substance abuse, suicidal idealization, and alcoholism (Deady, Mills, Teesson, & Kay-Lambkin, 2016). With the exponential uprising in social-media use throughout the world, psychologists and researchers have become interested in the depressive effects of social media use, especially as this form of communication has become one of the most prominent forms of communication among college students (Lin et al., 2016; McClosely, Iwanicki, Lauterback, Giammittorio, & Maxwell, 2015).

Various studies have shown how social media has impacted the lives of college students. Becker, Alzahabi, and Hopwood (2013) in their research found that college students are using social media to such a large extent that they are multi-tasking like never before with an increase of 119% in multi-tasking in the last decade. Students are less likely to be able to sit and focus on one task, instead needing constant distractions because social media has affected their ability to completely concentrate on one task. Lin et al. (2016) also found how social media use for college students has started to shape the identity and norms for young adults as they are able to communicate with and see the lives of other individuals. In fact, the ability to connect with and view anyone’s life, from friends in school to contemporary celebrities, has become a norm due to the unlimited social network provided by social media (Cavazos-
Rehg et al., 2016). Clearly, social media is changing the way college students are behaving and viewing the world.

With the better understanding of the effects of social media on college students, researchers are beginning to wonder if social media is contributing to heightening levels of depression among college students. Moreno and others (2012) found that social media use, specifically Facebook, is playing a role in depression for college students. Although Facebook use was not considered the predictor of depression, research revealed how social media sites allow for young adults to more honestly disclose their feelings and express themselves than they might in person. Analyses of more than a thousand posts from college students from two universities displayed a significant number of posts containing depressive content in line with a clinical diagnosis of depression. Moreno et al. (2015) ascribed such a large amount of depressed content to the fact that many students and people alike view depression and other psychological disorders as stigmatized and are too afraid to receive help (Youn et al., 2013). Thus, social media can act as a place where students who are struggling can express themselves more easily than they could if physically in person (Cavazos-Rehg et al., 2016; Moreno et al., 2012).

In line with previous research that social media use doesn’t directly correlate with levels of depression, Tandoc et al. (2015) also looked at the effects of Facebook use for college students. Understanding depression through social rank theory, Tandoc and his researchers (2015) saw how social media would lead to depression as users would compare themselves to others they were viewing online. If a person saw himself or herself as less successful than another person, that “envy” (p. 140) would lead to highly depressed feelings. Facebook and other social media sites are seen as a place to portray oneself in a positive light, so if users are constantly checking up on these sites only to feel inadequate compared to their friends, these users are more likely to feel depressed under social rank theory and see these posters as more successful and happier than themselves (Lin et al., 2016; Tandoc et al., 2015).
With the rise in both debilitating depression and social media use among college students, researchers have become more interested in understanding how the two affect each other and if there is a relationship between social media use and depression. While many studies have indicated that social media can contribute to depression, other studies have yielded conflicting research that social media use can also decrease levels of depression by providing online support for people (Lin et al., 2016; McCloskey et al., 2015; Tandoc et al., 2015; Tran, Uebelacker, Wenze, Collins, & Broughton, 2015). Further research still needs to be done on how media content on these sites plays a part in evoking feelings of depression (Cavazos-Rehg et al., 2016; Moreno et al., 2012).

**Current Research**

Given the previous findings on the harmful effects of social media on users and the need to further understand if social media use is negative, this study seeks to further test the impact that social media can play in feelings of depression among college students. In the present study, we seek to understand how the successful and self-promoting posts of friends on social media like Facebook can cause depressive feelings in college students as the higher density of successes posts and self-building posts of peers may cause symptoms such as low self-esteem, harboring feelings of envy toward the person posting (Tandoc et al., 2015), and desiring to post on social media in order to get more social recognition. This study will seek to develop insight on how prevalence of social-media use can contribute to levels of depression and how users psychologically respond to a variety of common-themed posts like Friends, Personal Achievement, Couples, and Accidents (negative life events) that appear on social media feeds.
Methods

Participants

Ninety-two current college students (n = 92) were surveyed from October 31 through November 10 throughout the United States and asked to participate in this study (69% Female, 31% Male). Of the total sample, sixty-three (n = 63) completed the full survey and were included in the data analysis below. There was a 6% response rate from the total participants offered the survey on Facebook and Learning Suite. 86% of respondents were White while 5% were Latino and another 5% Multi-Cultural. Ages for participants ranged from 18 to older than 25. Those involved were all assigned to respond to the same survey and received my friendship for completing the online survey.

Instruments

For understanding the depressive effects that media can contribute on individuals, this survey used 9 Likert-type questions from the Beck Depression Inventory (BDI). Each of the items was self-reported on a five-point scale (Strongly agree, agree, neither disagree or agree, disagree, and strongly disagree). Previous reliability coefficients for the BDI ranged from .73 to .92 with a mean of .86 (Beck, Steer, & Garbin, 1988), yielding high internal consistency.

Procedure

Participants signed up for this Qualtrics survey via the social media webpage Facebook or Brigham Young University’s student-academic page Learning Suite. Upon agreeing to take part in this study and verifying that they were currently enrolled in college, students were presented with 15 samples of actual social media posts (i.e. pictures, status-updates, etc.), whose permission to use for this survey’s content was individually acquired. Content was selected to fit under one of four different themes: Friendship, Couples, Personal Achievement, and Accidents. Subjects were prompted to respond to the 9 Likert-style questions adapted from the BDI for each social media post followed by demographic questions.
Results

Sixty-three respondents were included in the data analysis of this survey. Due to technical difficulties of the online-survey service, Qualtrics, not correctly displaying all the content of the questionnaire to respondents, 29 responses were not included. Possible scores for this questionnaire ranged from 9, strongly agreeing that they felt depressed toward the subject, to 45, strongly disagreeing that they were depressed after seeing the presented image. When grouping each post by theme, mean and standard deviations were high for each category: (1) Friends ($M = 34.85$, $SD = 3.86$), (2) Couples ($M = 32.97$, $SD = 5.02$), (3) Personal Achievement ($M = 33.33$, $SD = 4.09$), and (4) Accidents ($M = 34.86$, $SD = 3.86$), which indicate that participants did not feel depressive feelings resulting from social media content.

A repeated-measures ANOVA test was used to see if viewing social media was influential in feelings of depression and further, if any category of social media were more impactful. Analysis revealed that $F(3, 48) = 9.09$, $p < .001$, $\eta^2 = .36$. Using a Bonferroni post hoc test, significant differences between Friends and Couples ($p < .0009$), Friends and Personal Achievement ($p < .001$), Couples and Accidents ($p < .025$), and Personal Achievement and Accidents ($p < .025$) were established. Between Friends and Accidents, as well as between Couples and Personal Achievement, there were no significant differences. This indicates some similarity in depressive effects of social media content related to Friends and Accidents as well as Personal Achievement and Couples. Figure 1 represents these results.
This study was intended to measure the extent to which social-media content caused depressive feelings and thoughts among current college students. It was hypothesized that seeing posts concerning Friends, Couples, Personal Achievement, and Accidents would evoke feelings of sadness in the viewer. A repeated-measures ANOVA mildly supported this claim that social media in these areas can cause feelings of unhappiness. Means in each of the four categories were generally toward the higher possible score of 45, indicating low levels of depression felt by the respondents. Although higher means were found, average scores were low enough to yield some moderate saddening effects. A Bonferroni post hoc revealed that the categories of Friends and Accidents were alike in their emotionally upsetting effect while Couple related content was as influentially depressing as Personal Achievement related content. Responses indicated that posts concerning the achievements of others and especially couples led to more self-critical and depressive thoughts (See Figure 1). These findings may
be supportive of the assertions of Tandoc et al. (2015) that social media is most emotionally harmful because users harbor feelings of envy toward a romantic couple or a successful peer, who posts their happiness or prosperity for their friends to see. These friends, who may not share the same accomplishments or love life, may feel like they are less successful or unsuccessful than their friends and in turn develop lower self-esteem and a depressive outlook. Therefore, the more time spent looking at these common-themed posts on social media may contribute to higher level of depression.

In accordance to past experiments, this article supports the prevalent findings among researchers that social media has a depressive effect on users, especially college students. This study took past investigations further as it focused less on the amount of social media use and depression to how four specific and common themes may influence sadness. Because of its new direction, this study had limitations. Content and sampling for this test were collected all from the same Facebook page, indicating that many of the participants may have known the individuals featured in the study’s questions. Responses from respondents may have been biased by knowing or having previous feelings toward them rather than answering questions impartially or unbiased. Along with this, another limitation was that 41 of the 63 respondents (81%) were attending Brigham Young University. Because most of the participation came from one school, findings are not generalizable to the entire college-student population.

In looking to improve the future of this test, a larger and more diversified sample should be collected to better represent the desired population of all college students and the effects of social media on their depression levels. In addition, we would focus on what specifically about these images and their themes led respondents to feel unhappy—a more qualitative approach. The next test could include under each image an open-response box for participants to say what about each image led them to answer the way they did.

Findings in this study may support past research that social media contributes to depression among college students and add to
the current field by looking at how the themes of Friends, Couples, Personal Achievements, and Accidents affect depression. It is interesting to note how of these four, couple relationships promoted the most sadness among viewers. The results also advocate that further research is needed to understand why these specific themes cause differing levels of unhappiness, because significant differences were found. Better understanding how social media affects college students can facilitate and improve treating and supporting college students during this important stage of their lives.

References


