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Servicing Macho Mental Health Needs: Evidence that an Ecotherapeutic Orientation is More Appealing to the Highly Masculine than Other Therapeutic Orientations

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Abstract

Presently, stigma is one of most common problems facing mental health care providers. Stigma is generally associated with a lack of knowledge about therapeutic options and their effectiveness. Individuals with such negative stereotypes towards mental health care treatment may therefore not seek help when they need it. Previous research has found that reluctance to pursue mental health treatment is particularly prevalent among rural white males[2]. Additionally, research suggests that many individuals do not make distinctions among the variety of mental health treatments available. Rather, many only recognize one type: cognitive behavioral therapy[3]. Therefore, this study aims to see if select individuals with particular demographic and psychographic profiles, specifically rural males with high masculinity beliefs, might prefer ecotherapy (a type of therapy that utilizes some outdoor and nature-based methods) over other therapeutic methods. A regression analysis showed that highly masculine individuals preferred ecotherapy over art therapy, cognitive behavioral therapy, dialectical behavioral therapy, interpersonal therapy, and mindfulness based therapy, controlling for gender identity and mental illness stigma. Additionally, this study found that feminine individuals exhibit low stigma towards mental health treatment. Overall, the results suggest that masculine individuals in need of therapy could benefit from being informed about ecotherapeutic options.

1.Background: Stigma, Ecotherapy, and Masculinity

Stigma is one of the biggest challenges facing mental health care services today. Annually, about 1 in 5 Americans suffers from mental illness[1]. As such, the availability of and access to mental illness treatment is a critical societal imperative. However, stigma keeps many individuals suffering with mental illness from getting treated. Stigma, in the context of mental illness, is associated with the negative attitudes toward people with mental illness that result in prejudice and discrimination. Membership in the stigmatized group may cause self-stigma, the process in which a person with a mental illness diagnosis becomes aware of the public stigma, agrees with those beliefs and internalizes them, which results in self-loathing. Stigma and acceptability of treatments go hand in hand. In high-stigma areas (isolated rural), acceptability of treatment is extremely low, causing many to avoid seeking treatment due to self-stigma[2].

Stigma is often associated with a general lack of knowledge about mental health treatment options and effectiveness[2]. Therefore, those who have a higher stigma are less likely to get treatment. Reluctance to pursue mental health services is especially prevalent in isolated rural areas, and among white, older males[2]. Many people in rural areas have negative expectations of treatment and view mental illness problems more negatively than their urban counterparts[2]. Stigma may result from a lack of awareness of and education about mental illness, and misrepresentations or misunderstanding of the value of mental health treatment. Many that live in these areas of high stigma often may not be aware of the variety of treatments available, and how they can be tailored to fit them.

Treatment options, for example, can include online therapy, ecotherapy, cognitive behavioral therapy and a variety of other types of therapies and modes of delivery. Although there is a wide variety of mental health therapies, misunderstanding of mental health treatment may lead many people to perceive all therapies as a monolithic vagary.

Research shows that many individuals do make perceptual distinctions among therapeutic approaches. For example, group cognitive behavioral therapy was found to be less stigmatized than other therapies due to the group aspect of treatment[3]. In one-on-one treatment, patients may feel less accepted by their community, but in a group clients may realize that others are struggling with similar issues. Similarly, ecotherapy, a newer, lesser known treatment, may elicit a less negative reaction, less stigma, due to its unconventional approach. Ecotherapy, based on the theories and research of ecopsychology--which studies the relationship between human beings and the natural world through ecological and psychological principles--could have a similar effect on the more stigma influenced groups. Ecotherapy aims to "enlarge the scope of treatment to include the human-nature relationship"[4]. It consists of a client who is the center of the therapeutic treatment, a therapist and nature[4]. Ecotherapy's versatility, client-centered approach, and sometimes non-traditional settings, may be very appealing, and ultimately beneficial, to those who struggle with stigma and self-stigma but need treatment.

Ecotherapy's variety of nature-based methods that involve leaving the conventional office setting, could serve as a viable alternative for individuals who find traditional therapy unappealing[5]. Moreover, ecotherapy's focus on nature might attract those intimidated by a traditional office setting by introducing a different, attractive therapeutic component: the natural world.

For the study, the Mental Health Seeking Attitude Scale (MHSAS), a therapy preference ranking, and the BEM Sex-Role Inventory were utilized. The MHSAS is an established scale that aims to measure an individual's perception of mental health treatment should they need assistance with metal health. The MHSAS uses a 10-item scale to rank mental health treatments as "useful" or "not useful". The framed question is "If I had a mental health concern, seeking help from a mental health care professional would be..." and uses scales ranked 1-7 with phrases of "ineffective" as 1 to "effective" as 7. The therapy preference ranking lists 6 therapeutic approaches with brief descriptions of each prompting the respondent to rank the therapy methods as totally unappealing, unappealing, somewhat unappealing, somewhat appealing, appealing and very appealing. An example of a description includes the definition of ecotherapy therapy as, "Taking on a variety of settings, ecotherapy has a client-based focus on reconnecting with nature. This can be done through nature-based metaphors, venturing out into nature, or touching a natural object to help produce emotions. Ecotherapy sessions last 60 minutes per session and generally go on for 12-16 weeks, with 20-minute homework assignments every week". Lastly, the BEM Sex-Role Inventory is also an established scale that aims to measure an individual's androgyny, femininity, and masculinity. A characteristic is provided, with a scale of 1-7 with 1 being "almost never true" and 7 being "almost always true". A few examples of characteristics provided were "yielding", "self-reliant" and "conventional."

The present study was designed to measure participants' stigma towards traditional therapy, to identify therapy methods that participants find appealing, and determine if there are associations between stigma, therapy preference, demographic and psychographic variables, and gender identity. In this study, we predict there will be a relationship between therapy preference and the stigma one feels towards traditional therapy. In addition, both therapy preference and stigma attitudes are predicted to be associated with demographic and psychographic (i.e., BEM Sex-Role Inventory scores) information and gender identity. In particular, we predict that higher masculinity scores from rural areas will be associated with greater stigma attitudes and a preference for ecotherapy over other therapeutic approaches.

2.Method

2.1 Participants

Our participants were college students, recruited from the psychology moodle and non-psychology students at UNC Asheville. Participants were provided with information about the study and were given an opportunity to have their concerns addressed and questions answered before they provided consent to participate. The survey included prompts for demographic information. Responses were anonymous.

2.2 Materials

We provided the participants with descriptions of a variety of different therapies and to determine which ones they found most appealing. The list included: art therapy, cognitive behavioral therapy, ecotherapy, dialectical behavioral therapy, interpersonal therapy, and mindfulness-based therapy. We then provided the participants with the Mental Help Seeking Attitudes Scale (MHSAS) and the BEM Sex-Role Inventory (BSRI) to measure participants' attitudes towards treatment and their general masculinity/femininity rating to determine if those measures were associated with higher stigma. Masculine traits on the BSRI included, as an examples of the types of items on the inventory, self-reliant, aggressive and forceful, while feminine traits included compassionate and soft-spoken. The inventory, it should be noted, is not without criticism.

2.2.1 descriptions of therapies

2.2.1.1 art therapy

Focusing on using creative techniques like drawing, painting, or sculpting for patients to express themselves artistically and for psychologist to analyze the psychological elements of their art that can be used to better understand emotions and behaviors[6].

2.2.1.2 cognitive behavioral therapy (cbt)

Focusing on how to handle difficult situations resulting from emotions. A talk therapy where you attend a specified number of sessions with a therapist, focusing on challenging situations.

2.2.1.3 dialectical behavior therapy (dbt)

Similar to CBT, but focusing more on emotional and social skills. Targets harmful behaviors through emotional control and a specified skill-set.

2.2.1.4 interpersonal therapy (ipt)

Time restricted therapy focused on treating mood disorders. IPT focuses on improving the quality of the client's relationship by examining attachments to aid in reducing stress. The treatment is centered around interpersonal problems.

2.2.1.5 mindfulness-based therapy (mbt)

Uses CBT with incorporated mindfulness meditation techniques such as deep breathing. Helps clients understand and manage their thoughts and emotions to relieve feelings of distress.

2.2.1.6 ecotherapy

Taking on a variety of settings, ecotherapy has a client-based focus on reconnecting with nature. This can be done through nature-based metaphors, venturing out into nature, or touching a natural object to help produce emotions[5].

2.2.2 survey/questionnaire

The survey can be found at this link: https://forms.gle/yZdfFLYTWduGczgh7

2.3 Procedure

The survey consists of 6 parts: A brief description of the purpose of the survey, informed consent, demographic information, a preference of treatment from the list (art therapy, cognitive behavioral therapy, ecotherapy, dialectical behavioral therapy, interpersonal therapy, and mindfulness-based therapy), the Mental Help Seeking Attitudes Scale (MHSAS) and the BEM Sex-Role Inventory.

3. Results

3.1 Descriptive Statistics

The sample obtained consisted of 182 responses (n=182). Of these 182, 132 respondents identified as female, 43 identified as male, and 7 identified as non-binary. About 20% of the sample identified as racial minority; 79.1% identified as white. Thirty-three respondents were from the city, 48 were from a rural area, and 101 were from a sub-urban area (see Table.1 below).

3.2 Sex, Masculinity, Stigma, And Therapy Preference

A Pearson correlation test (see Table.2 below) revealed a statistically significant positive correlation (+.22) between masculine scores reflected in the BEM Sex Role Inventory portion of the survey and an ecotherapy preference from the therapeutic technique preference section of the survey. This result confirmed the prediction that participants with higher masculine scores would be more drawn to ecotherapy as a preferred therapeutic technique.

The correlation data (see Table.2 below) also revealed a statistically significant negative correlation (-.30) between feminine scores and the MHSAS portion of the survey, revealing a low-stigma towards mental health treatment. That is, as femininity increased, stigma towards mental health treatment decreased. No significant correlation between stigma and masculinity scores was found.

ANOVA ($F(2, 179) = 14.28$, $p < .001$) was used to compare males, females and non-binaries in preferences towards types of therapy. It was found that females (M= 4.37, SD= 1.60) and non-binaries (M= 5.29, SD= 1.113) preferred art therapy over males (M= 3.0, SD= 1.57), $F(2, 179) = 14.28$, $p < .001$. Additionally, from the ANOVA test, it was observed that actual biological sex (but BEM Sex Role Inventory score) showed no significant preference for an ecotherapeutic technique. Female respondents had a mean rating of 3.80 (1 = unappealing to 5= very appealing) (SD = 1.68), while male respondents had a mean rating of 3.72 (SD = 1.52).

No associations between the area a respondent was from (urban v. sub-urban v. rural), their preference for ecotherapy, and mental health stigma were found.

Table 1: Descriptive Statistics of Correlation Between Feminine & Masculine Scores & MHSAS

	Mean	*Standard Deviation*	*N (sample)*
Ecotherapy Num. Values	3.77	1.63	182
Feminine Scores	4.91	0.77	182
Masculine Scores	4.65	0.93	182
MHSAS	19.80	9.53	182

Table 2: Correlations

	Ecotherapy Preference	*MHSAS*
Masculine Scores	+.22	-.00
Feminine Scores	+.10	-.30

*red indicates significant

Note: Masculine scores were not correlated with any other therapeutic preference.

A multiple regression was performed using gender, location, stigma belief, and masculinity as predictors and ecotherapy as the outcome. The model was statistically significant and masculinity made a unique, statistically significant contribution to the prediction ecotherapy preference. See Table.3 for a summary of the relevant statistics.

Table 3: Summary of Multiple Regression Analysis Using Masculine Scores and Ecotherapy Preference

MODEL	*β*	*Standard Error*	*t*	*p*
Masculine Scores	0.216	.127	2.97	0.003

3.3 Femininity And Stigma

As noted above, a statistically significant correlation (see Table.2) was observed. The higher a feminine score, the lower the stigma score.

4. Discussion

The present study set out to find if there was an association between masculinity scores, stigma towards mental health treatment, place of childhood residence, and preference for ecotherapy. After survey response data was gathered from 182 participants, analyses were run to test this association. Through Pearson correlation, the data obtained supported the hypothesis in part, showing a statistically significant correlation between masculine BEM Sex Role Inventory scores and a preference for ecotherapy over art therapy, cognitive behavioral therapy, dialectical behavior therapy, interpersonal therapy, and mindfulness therapy. There was no correlation/ between childhood residence and stigma scores. Additionally, it should be noted that biological sex had no correlation to ecotherapeutic preference. The Pearson correlation analysis also revealed a statistically significant correlation between feminine scores and a negative stigma correlation, meaning the higher a feminine score, the lower their stigma towards mental health treatment. Stigma scores did not predict ecotherapy preference. The data also showed that non-binaries and those with high feminine scores had a higher preference for art therapy than those with high masculine scores.

Clearly, stigma towards mental health is an ever-present threat to those struggling with mental illness. People struggling with mental illness in places where stigma is particularly heightened often feel alienated from their communities and feel they can't speak up about their thoughts and emotions. Stigma can prevent individuals from seeking mental health treatment, or even admitting that they have a mental health illness in the first place. This can be particularly troublesome for professions such as the military, or even rural mining towns where mental health problems are socially taboo.

In previous studies, it was found that rural area males had a statistically significant stigma towards mental health treatment[2]. The present study showed no such association between childhood residence and stigma, nor did it show a significant correlation between masculine scores and stigma. This could be a result of a limited sample, or it could be due to limitations of the cited study. Another suggestion for this discrepancy between the results of the two studies is that stigma is not related to or only weakly related to biological sex. However, this study did find that as stigma score increased, preference for mindfulness decreased. This could be a result of mindfulness recently becoming a buzzword for new-wave therapies that are unappealing to those with stigma. Stigma scores did not predict ecotherapy preference.

In our society, some forms of mental illness disorders are commonly, unofficially, categorized as more female-associated or more male-associated, resulting in their perceived stigma as more negative if male-associated and less negative if female-associated[7]. For example, antisocial personality disorder, characterized by a disregard for one's safety and an absence of remorse is generally a male-associated disorder and deemed to have a high stigma attached to it. Conversely, a female-associated disorder is dependent personality disorder, essentially characterized by an overly clingy personality and has a lower stigma attached to it. Additional examples are schizophrenia and paraphilia as generally male associated disorders and eating disorders and depression as female associated[8].

The study found a statistically significant correlation between negative stigma scores and feminine scores from the BEM Sex Role Inventory. This finding shows that individuals with high feminine scores had a low stigma towards mental health treatment. This finding confirms findings from previous research[8]. The association of negative stigma with masculine identities could also be a plausible explanation for why feminine scores were correlated with a low

stigma score; high feminine scores could have been envisioning more "harmless" mental illnesses—ones that seemingly have no long-term effects.

As expected, this study found a significant link between masculine scores and a preference for ecotherapeutic techniques. Ecotherapy, as previously discussed in the introduction, has a wide variety of methods and applications and is not have to be extreme, such as wilderness therapy. Wilderness therapy is a therapeutic experience focused on behavior modification and self improvement in a group wilderness setting[4]. It often involves backpacking or camping in some form. In Canada, a program known as Outward Bound Canada Veterans (OBCV) has been established for military personnel, due to perceived stigma associated with mental illness cited as one of the most common barriers for not seeking mental health treatment for disorders such as PTSD[9]. This program, based in wilderness therapy, has been shown to have a positive impact among this community[9]. The OBCV program has several requirements to be successful for participants. These include: removing participants from their everyday lives, a disconnection from the noise associated with urban settings, electronics, artificial stimuli, and a direct contact with nature[9]. Following participation in OBCV, participants reported a process of being able to recognize and reflect on their experiences, being able to discuss these experiences in a group setting, coming to terms with self-concepts and above all, embracing the OBCV experience rather than pushing it away[9]. Being able to reconcile self-concepts could suggest a positive impact on stigma due to participation in OBCV[9]. The finding from this study is consistent with recent research showing that veterans suffering from PTSD may benefit from wilderness therapy by reducing stigma associated with mental health treatments. Ecotherapy, similar to wilderness therapy but less immersive, may also be appealing to military personnel.

Ecotherapy does not go as far as removing participants from their everyday lives as OBCV does, but it does incorporate more aspects of nature to assist the participant in describing and recognizing how they feel. Ecotherapy can be as simple as incorporating rocks and twigs into your cognitive behavioral therapy and asking the patient to create nature metaphors for their everyday life struggles. This can include practices such as nature journaling, drawing or writing in response to natural observations, mindfulness practices outdoors including listening to the sounds of nature, or even horticulture therapy which, for example, might focus on plant growth in relation to self-growth. In practice, ecotherapy may have major benefits especially in treating people reluctant to pursue psychotherapy. This could include court-ordered therapy, therapy from involuntary hospitalization, therapy for military personnel, or therapy for those that are not comfortable with established therapy protocols. Though there isn't extensive research supporting the efficacy of ecotherapy in comparison to well-established therapeutic modalities, such as cognitive behavioral therapy, sometimes just planting the seed and getting people comfortable with the idea of therapy could be all it takes to remove reservations the individual has regarding the pursuit of a wide variety of mental health services with established efficacies.

Another explanation for the results of the present research could be as simple as many people readily recognize that we, as human beings, are part of nature. We are created by nature and our increasing distance from the natural world likely contribute to mental problems. As our reliance on technology has increased, our connection and interaction with nature seems to have dramatically decreased. Perhaps the preference for ecotherapy expressed by the highly masculine in this study reflects their feeling of nature disconnection.

The present study had a few limitations. The first is that the sample of college students may not be representative of the population. Also, the anonymous survey did not allow researchers to address misunderstandings based on the questions posed in the survey. Additionally, since the respondents are from a liberal arts college, they could be more forward thinking or progressive than other college campuses, making the sample, again, not representative of the population. Furthermore, the majority of the sample likely came from the psychology major/minor, so the respondents are more versed in psychology and supportive of psychology's therapeutic treatments.

Overall, this study found a statistically significant association between masculine scores from the BEM Sex Role Inventory and a preference for ecotherapy over CBT, DBT, art therapy, interpersonal therapy and mindfulness-based therapies. Perhaps ecotherapy could help reach populations of people who are otherwise averse to therapy. Additionally, this study found a statistically significant correlation between low-stigma scores on the Mental Health Seeking Attitude Scale and high femininity scores on the BEM Sex Role Inventory, confirming previous research findings. This study is a small step in the direction of possibly broadening access to mental health services in populations with high stigma towards mental health treatment. Future studies may seek to understand the perceived effectiveness of other forms of therapy different from the well-known CBT approach.

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