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TESTING THE PAGAN PRESCRIPTION: USING A RANDOMISED CONTROLLED TRIAL TO INVESTIGATE PAGAN SPELL CASTING AS A FORM OF NONCONTACT HEALING

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ABSTRACT

Objectives: This research investigates the healing practices of modern Paganism using a Randomised Controlled Trial (RCT). Paganism is a burgeoning belief system in the UK within which healing is a key aspect. However, Pagan spellcasting practices have received little attention from distance healing researchers. This study aims to address this gap in the literature.

Design: This study utilised a randomised, double blind, delayed intervention design.

Settings/location: Research took place at the University of Northampton.

Subjects: 44 Participants (30 female, 14 male) were recruited using snowball sampling (mean age = 24.30; range = 18-55).

Procedure: Participants were randomly allocated to either Group A or B. Participants made written requests to the practitioner about changes they would like to see in their lives and provided a photograph and personal item to be used during the intervention. Participants attended meetings once a week during which they would take part in a guided body scan meditation before completing a quality of life measure. Healing practices were conducted for Group A between weeks one and two and for Group B between weeks two and three.

Outcome measure: Wellbeing was measured using the 26-item WHOQOL-BREF.

Results: MANOVA analysis showed a significant, positive change in general health from week one to week four ($F = 4.02$, $p = .025$, $eta^2 = .149$). Separate ANOVAs of the four WHOQOL domains showed significant improvements across the study in the Physical and Psychological domains only, there was no significant group difference on any of the outcomes.

Conclusion: All participants showed an increase in health and wellbeing domains directly related to their spell requests. However, there are no group differences to suggest that the spell casting intervention was responsible.

KEYWORDS: Randomised Controlled Trial, Neo-Paganism, distance healing, noncontact healing, spells, WHOQOL- BREF

INTRODUCTION

Previous reviews of non-contact healing methods have widely told the same story; studies tend to show statistically significant effects, but interpretation of these results is hampered by poor methodological quality.[1-6] Some of these quality concerns were addressed in a more recent meta-analysis[7] that differentiated between 49 'whole' human studies (in which the focus of healing attempts was a patient or client, treated holistically) and 57 'non-whole human' studies that included simpler biological systems(such as tissue samples and cell cultures, but also animals and plants). This allowed researchers to consider the impact of expectancy effects or putative benefits from the healing intentions of friends, family or their own religious groups, since these were only plausible for the first group. The combined weighted effect size for whole human studies yielded a small but significant r of .203, while the non-whole human studies yielded a significant r of .258, confirming the pattern reported previously.[1-6] However, both databases showed problems with heterogeneity and there were still serious issues with study quality. A number of recommendations for future replication attempts were set out that would ensure that future work met threshold quality standards, including; all primary outcomes should be pre-specified; the healee population should be clearly circumscribed, with explicit inclusion/exclusion criteria; research should state explicit criteria for the appointment of healers and intercessors that is related to the target population/illness; researchers should ensure ecological and model validity by providing instructions to healers that reflect their traditional modus operandi and using outcomes that reflect the claimed in vivo effects.[7] In this respect, pragmatic trial designs, which are designed to evaluate the effectiveness of interventions in real-life routine practice conditions, are preferable to explanatory trial designs, which are conducted under optimal but unrealistic conditions.[8] The present study is an attempt to meet these criteria. Roe et al.[7] were particularly concerned with the wide variability in the way healers were identified and briefed concerning the healing outcomes, which had implications

for ecological validity (in asking healers to perform tasks that fell outside their normal practice) and for the consistency of practice across participants. In this research it was therefore considered necessary to identify practitioners for whom sending healing to others was a core element of their normal practice and which involved a degree of practice or training.

This led to the consideration of Pagan spellcasting. Orion[9] refers to healing as a central feature of Neo-Paganism in which spells are described as a way of raising energy, "programming" it for a specific purpose and sending it out to a specified target. Willin[10] found that when British Wiccans were asked "what form does [spellcraft] take [in your practice]?" 50% responded with the word 'healing'. Almost every commercially produced spell book has a section on healing spells[e.g., 11-13] and the anthropological and sociological investigations of modern Pagans often include an account of a healing spell being conducted.[9,14] Modern Pagans feel a kinship with folk healers of history[9], which also attests to the key function of healing in the Pagan belief system. Nevertheless, these practices have not been subject to the same empirical investigation as other approaches; indeed, there does not appear to be any previous study that has subjected Pagan spellcasting to testing using an RCT design.

In order to ensure that such an empirical test had ecological validity and authenticity, Sonnex (2017)[1] conducted interviews with modern Pagans about their spellcasting practices. This revealed that while Pagan practice is fluid and idiosyncratic within a personal ethical framework there were some common features. For example, Pagan practitioners typically work with people with a variety of needs or requests, ranging from acute and severe health issues through to general well-being concerns among otherwise healthy people. The intentions of both the casters and castees were frequently considered to be an important factor: casters should have only positive, selfless intentions when casting spells, and castees' requests should not be fulfilled if there was any risk of harm coming to themselves or others. Castee scepticism was believed to reduce the efficacy of spell casting and caster scepticism was believed to render

spell work completely ineffective. Pagan ritual usually begins with the creation of a sacred space a sacred space, most commonly in a process called “casting the circle” that involves delineating the boundary of the circle both physically through the use of magical tools and by sanctifying the space by inviting in various entities such as the spirits of the elements associated with the cardinal points of the compass and the God and Goddess.[14] Paraphernalia (such as candles, incense, and representations of the targets of the spells), and design elements (such as the phase of the moon, or day of the week when spells are cast or which deities are included in the spell) are believed toe spellcasting process on both psychological and energetic levels and are regarded as essential.

Effects were commonly considered to be holistic, non-specific and fast acting, with results starting to be seen within a few days of the casting. The non-specific nature of effects is a feature of a number of distant healing traditions and is perceived by practitioners as a potential stumbling block when attempting to capture the efficacy of such interventions using conventional research methods.[2,15-17] This can lead to tensions between practitioners and researchers looking to employ such methods. To avoid such tensions, it is recommended to consult with healers about their practices and tailor the RCT design to suit them.[16, 18-21] Therefore the insights provided by Sonnex (2017)[*] were also taken into account in the current study design.

The two primary aims of the present study were therefore to show how recommendations made by Roe at al[7] might be implemented in subsequent RCT designs, and to explore whether the distant healing Paradigm can be extended to Pagan healing practices.

This study adopted a pragmatic trial design to test the following hypotheses;

- Participants allocated to Group A (i.e. those who were the focus of Pagan healing practices between T0 and T1) will show a greater improvement on all wellbeing

outcomes between T0 and T1, compared with those in Group B (those who were the focus of Pagan healing practices between T1 and T2).

- Participants allocated to Group B will show a greater improvement on all wellbeing outcomes between T1 and T2, compared with those in group A.

MATERIALS AND METHODS

Design

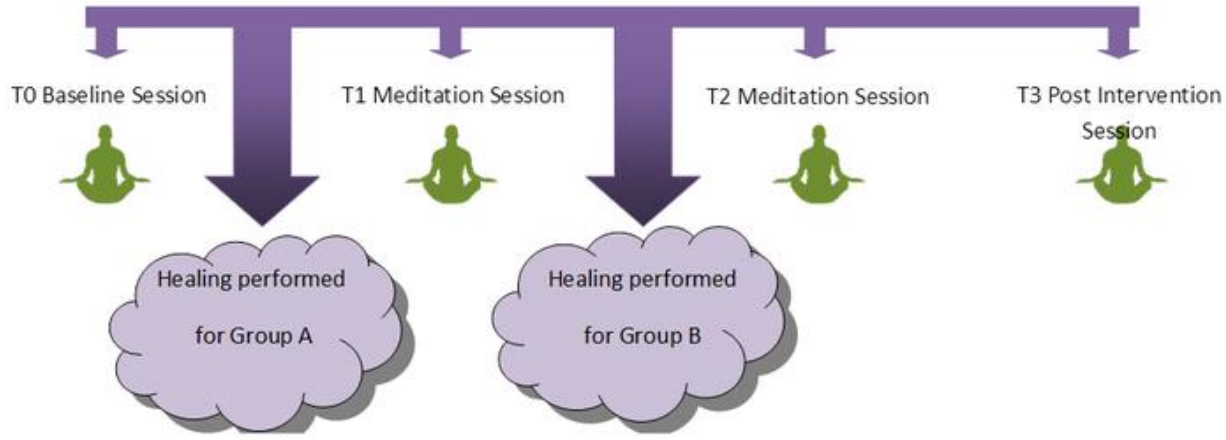
This study utilised a delayed intervention randomised design, in which participants are randomised to receive either the active treatment or a control treatment in the first stage, with those assigned to the control treatment receiving the intervention in the next stage.[22] This design allows researchers to bypass ethical concerns around withholding possibly beneficial treatments from participants allocated to a control condition,[22,23] which was essential if the design was to be regarded as ethical from a Pagan perspective. It is important in delayed-start trials to define adequate stage durations,[22] and this is usually based on information about the health condition being investigated. Because this study used a healthy sample, stage duration was based on information from interviews with Pagan practitioners about the intervention itself (Sonnex, 2017).[*] Thus the study adopted the schedule given in Figure 1.

In accordance with the practitioner's preferred practice, trials were scheduled according to phases of the moon(to occur specifically during a waxing or full moon) and Participants were required to provide a photograph of themselves and a personal item as well as to complete a spell request form, outlining their desired outcome of the intervention so that spells could be designed appropriately. The practitioner was able to reject any requests that she felt to be against her ethical principles and instead to use a generic request for an improvement in health

and well-being. Participants were advised in the information and consent form that this may occur.

A body scan meditation was offered as part of the four group data collection sessions as a focal activity for participants, this was not part of the intervention and does not reflect standard Pagan practices. This activity was also intended to provide a way for participants to relax so that they could more accurately gauge their quality of life over the past week. The same 25-minute audio guided body scan meditation [24] was utilised in each session.

Figure 1: Delayed Intervention RCT design



Participants

Participants were gathered via the university's Research Participation System, using snowball sampling, and through adverts placed on the first author's social network page. Participation was restricted to persons aged 18 or over who had no debilitating medical conditions. It was

made clear that the intervention was not intended as a substitute for conventional health treatments and if they had any concerns they should consult and receive treatment from an appropriately qualified health practitioner. Of 57 participants who volunteered to take part, 12 (21%) did not complete the programme, and one participant's request was deemed by the practitioner to not be appropriate even as a general request. Thus, 44 participants (30 F, 14 M; age range 18-55, mean = 24.0) completed the full programme.

The Practitioner was recruited from participants in an interview study (Sonnex, 2017).* 'Yarrowwitch' (pseudonym) has over 40 years' experience in Paganism, frequently conducts healing spells, and was confident she could be successful under the conditions of the study, which she explained were similar to her usual practice. Using a single practitioner ensured a homogeneous approach to all trials (in accordance with previous recommendations),[7] which is especially important given the idiosyncratic nature of Pagan practice. To ensure model validity, no direction was given to the practitioner as to how rituals should be conducted.

Materials

Scepticism questionnaire

Pagan practitioners have reported that castee scepticism can have an impact on the success of spell work. Therefore, participants were asked to respond to three statements regarding their expectations using a 5-point Likert response scale (from 1 = Strongly disagree to 5 = Strongly agree): "I believe that distant healing is possible"; "I believe Pagan spell casting works"; and "I believe that I can experience health and well-being changes over the course of this study". This questionnaire was only administered in the first session.

WHOQOL-BREF

Pagan practitioners have indicated that the spells they cast can have non-specific beneficial effects, so that wellbeing effects might only be captured by holistic outcome measures. The WHOQOL-100 was developed by the World Health Organisation to provide a holistic measure of quality of life.[25,26] The WHOQOL-BREF is an abbreviated form consisting of 26 items (one for each facet identified in the WHOQOL-100) organised into four domains, as outlined in Table 1, with two questions measuring general health and quality of life (QoL). All questions are measured on a five-point Likert scale.[25] The abbreviated scale has shown cross-cultural validity,[27,28] and has satisfactory discriminant and construct validity.[26]

Table 1: WHOQO-BREF facets within the four domains[29]

Domain	Facets incorporated within domain
Physical health	Activities of daily living, Dependence on medical substances and medical aids, Energy and Fatigue, Mobility, Pain and discomfort, Sleep and rest, Work capacity
Psychological	Bodily image and appearance, Negative feelings, Positive Feelings, Self-esteem, Spirituality/Religion/Personal Beliefs, Thinking, learning, memory and concentration
Social Relationships	Personal relationships, Social support, Sexual activity
Environmental	Financial resources, Freedom, physical safety and security, Health and social care; accessibility and quality, Home environment, Opportunities for acquiring new information and skills, Participation in and opportunities for recreation/ leisure activities, Physical environment such as pollution, noise, traffic, climate, Transport

The WHOQOL BREF asks participants to answer health and wellbeing questions based on their experience over the previous two weeks, but the manual states "It is recognised that different time frames may be necessary for particular uses of the instrument in subsequent stages of work ... and therefore changing the timescale may be appropriate".[25] Thus, in the present study participants were asked to complete the measure with reference to the previous two weeks at T0, but over the previous one week at T1, T2, and T3.

Ethical Considerations

This study was approved by the University's Research Ethics Committee. It was emphasised that the study was an empirical assessment of a health intervention that was intended for people in general good health and participation should not be regarded as an alternative to conventional treatments for ill health. To allay any concerns about the nature of the spells, it was explained that the spellcasting involved only the intention to improve health and well-being. All items and photographs provided by participants were kept in a locked box to which only the researchers and practitioner had access, were transported to the practitioner via a secure delivery service to ensure participant confidentiality, and were returned to the participant at the end of the trial.

The practitioner was informed that the study should not be construed as a test of her abilities in any absolute sense; rather, the aim was to see if Pagan healing spells could operate under the same conditions as other forms of healing that have been tested with some success. No payment was made to the practitioner, and consent included an assurance that she would remain anonymous and would not try and use participation in the study for any personal gain.

Procedure

In total, eight four-week long trials were conducted with between 4 and 11 participants in each trial. Participants attended sessions once a week at the university. At T0 a plenary session was

held during which the participants were given an overview of what would happen over the course of the trial, and any issues or questions were addressed. Participants then took part in the body scan meditation, completed the WHOQOL- BREF, the scepticism scale and the spell request form. Participants provided their item and photograph, which were placed in envelopes and passed to the second author, who had no direct contact with the participants. He randomly allocated participants to group A or group B using random number tables. Materials for Group A members were sent to the practitioner and healing practices were conducted in the period between T0 and T1. At the T1 session participants discussed their experiences of the past week, completed the meditation followed by the WHOQOL-BREF. This process was repeated in the period between T1 and T2, but with healing practices conducted for Group B participants — participants were unaware of when the healing practices would occur. No workings were conducted in the period between T2 and T3, thus allowing for the measurement of any residual effects. At T3 participants convened to complete the final WHOQOL-BREF, to answer an open-ended question about their experiences during the trial period, and to retrieve their photographs and target objects. Practitioner debriefing occurred a day or two after spells had been conducted to allow her to give feedback on her casting experience.

Spell casting procedure

The practitioner provided an overview of the ritual she used. In line with the primary features of Pagan ritual, Yarrowwitch began by casting a circle and then invoked Aesculapius, the ancient Greek god of healing. A candle was placed on the altar with a salt lamp for each castee, along with their photograph and token. Yarrowwitch also used an incense blend of lavender, orange blossom, and thyme which are indigenous to Greece. The ritual itself involved reciting an Orphic hymn to Aesculapius that named each castee and their specific request, directing that their suffering be relieved and that they may live in good health and joy from that point forward. The ritual was then concluded, and the circle “closed”.

RESULTS

The recommendations for future noncontact healing research,[7] stated that "Where multiple DVs are measured researchers should report appropriate omnibus tests before individual variable tests to avoid concerns over cherry picking". Thus a MANOVA test was used to establish if there had been any improvement in wellbeing over the duration of the study. Results showed a significant, positive change from T0 to T3 ($F = 4.02$, $p = .025$, $eta^2 = .149$); this result is due to significant positive changes only in general health ($F = 8.22$, $p = .006$, $eta^2 = .149$) and not quality of life ($F = .47$, $p = .498$, $eta^2 = .010$).

Changes in the four individual domains across the whole trial period were examined using separate ANOVAs (see Table 2), and showed significant improvements in the Physical and Psychological domains but not in the Social and Environmental domains.

Table 2 ANOVA results for individual Domain changes

Domain	F	p	η^2
Physical	3.45	0.02	0.076
Psychological	7.44	< .001	0.15
Social	1.21	0.31	0.028
Environmental	2.23	0.11	0.05

When analysing the spell requests made by participants it was discovered that the majority of requests fell into the Psychological domain (which shows the greatest increase in wellbeing) followed by the Physical domain, the Social domain and finally the Environmental domain. This suggests that participants showed the greatest improvements in the areas requested for in the intervention.

To gauge whether changes in wellbeing were associated with expectations of an effect, participants' scepticism scores were correlated against changes in domain scores from T0 to T3. Pearson's r correlations are given in Table 3. All of the effect sizes are small and are nonsignificant.

Table 3 Pearson correlations between scepticism scores and Domain changes from T0 to T3

Domain	r	p
QoL	-0.01	0.97
Health	0.05	1.71
Physical	-0.15	0.30
Psychological	0.01	0.96
Social	-0.15	0.30
Environmental	0.18	0.21

Effects of Group A intervention

It was predicted that Group A would show a greater improvement compared with Group B on all outcomes between T0 and T1 (the period during which they received the healing intervention). Differences in outcome scores between T0 and T1 were calculated using MANOVA, and are summarised in Table 4. These indicate no significant differences between the two groups on any of the six outcome domains.

Table 4 MANOVA results difference scores all outcomes T0-T1

Domain	mean	std. dev.	F	p	η^2
QoL	-0.11	0.77	0.35	0.56	0.01
Health	0.19	0.85	2.21	0.14	0.04
Physical	0.17	2.05	0.10	0.76	0.00
Psychological	0.26	1.98	0.33	0.56	0.01
Social	0.52	2.48	0.47	0.50	0.01
Environmental	0.31	1.72	0.30	0.59	0.01

Effects of Group B intervention

It was predicted that Group B would show a greater improvement compared with Group A on all outcomes between T1 and T2. MANOVA analysis was conducted as previously, and results are given in Table 5. Again, no differences are evident to indicate any noncontact healing effect.

Table 5 MANOVA results difference scores all outcomes T1-T2

Domain	mean	std.dev	F	p	η^2
QoL	0.09	0.65	0.29	0.59	0.01
Health	0.17	0.79	1.80	0.19	0.04
Physical	0.34	1.94	1.21	0.28	0.03
Psychological	0.63	1.83	0.88	0.35	0.02
Social	-0.37	2.80	1.01	0.32	0.02
Environmental	0.06	1.71	0.40	0.53	0.01

DISCUSSION

In this randomised controlled trial to assess whether Pagan spellcasting can produce evidence of noncontact healing participants do show an improvement across the length of the study in domains directly related to their spell requests, which is suggestive of an effect of the intervention; the small but significant effect sizes are consistent with earlier reviews of noncontact healing RCTs.[1,7] However, the lack of significant group differences during the intervention periods suggests that Pagan spellcasting was not the immediate cause of changes in health and wellbeing. The lack of group differences in T0-T1 (favouring Group A) and T1-T2 (favouring Group B) may be the result of inadequate stage durations; although practitioners have reported that they expect effects to be realised quickly, one week may be insufficient time for them to be measurable (as found for some allopathic treatments).[29-31] There may also be 'carry over effects', with members of Group A continuing to show improvements in the period T1-T2, such that they might obscure any changes shown by Group B participants. It should be noted that the recommended timescale for the WHOQOL BREF is two weeks and that reducing that timeframe may have also reduced the sensitivity of the scale to change. Although the WHO

state that the timeframe can be changed as required by the research, no indication is given of the impact this may have on the reliability and validity of the scale.[25]

Of course, it is possible that improvements in health and wellbeing across the duration of the study are a result of Hawthorne or placebo effects. In considering the latter possibility, it should be noted that scores on an initial scepticism measure were not correlated with any outcome, indicating that participants' expectations of the efficacy of the intervention were not directly related to their scores.

Relatedly, improvements seen across the period of study may have resulted from the mindfulness meditations that participants completed during the trial. There is strong evidence to suggest that such practices can have a positive impact on physical health and psychological well-being.[32,33] However, improvements (for example in working memory capacity, decreased rumination, and decreased emotional reactivity) are predicated upon the amount of meditation practice,[30] so it remains unlikely that four 25-minute body scan meditations provided over four weeks could produce the improvements observed. Notwithstanding this, the researchers are grateful to an anonymous referee for pointing out evidence that challenges this view.[34,35] There are alternatives to having people come together to collect data, such as experience sampling methodologies[36] which would eliminate the possibility of a mediation effect entirely.

Despite addressing a number of concerns raised by previous reviews of CAM research, this study still suffers from some of the methodological issues that affect other studies in this area, including low power and the narrowed scope for improvement in wellbeing in healthy participants. Considering that this research has not been attempted before, some issues with experimental design are to be expected, and it is hoped that this research will act as a catalyst for further research with this special population. Recommendations for future research include adoption of a larger sample size, the use of a clinical population who might be more sensitive

to wellbeing interventions, and a design that utilises expanded epochs that allow delayed intervention effects to be detected. Whilst the decision to use a single practitioner in this study was based upon recommendations[7] this may also be a limitation given the likelihood of individual differences between practitioners. Future research should explore this possibility by utilising multiple practitioners, with participants only receiving the intervention from a single practitioner to ensure ecological and model validity.

Nevertheless, the findings from this study do give encouragement that with some adjustments it is possible to accommodate the experiences of healers into trial design without compromising on quality or rigour. It is important for future noncontact healing researchers to engage with practitioners for whom healing is a lived experience.

CONCLUSIONS

The aims of this study were to show how recommendations made by Roe at al[7] might be implemented in subsequent RCT designs that test claims for noncontact healing, and to explore whether claims for the efficacy of Pagan healing practices could be tested within an RCT paradigm. The study described here was successful insofar as it was able to demonstrate that an improvement in wellbeing can be produced within an RCT test of Pagan spellcasting. The fact that these improvements could not be attributed to the healing intervention per se, despite the domains of improvement reflecting participant requests, highlights areas for improvement in future research with Pagan healers. Given that this is a tradition that incorporates healing as a central tenet and has clearly prescribed practices designs, we would argue that such research would be worthwhile.

Author Disclosure Statement

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INTRODUCTION

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MATERIALS AND METHODS

Design

This study utilised a delayed intervention randomised design, in which participants are randomised to receive either the active treatment or a control treatment in the first stage, with those assigned to the control treatment receiving the intervention in the next stage.[20] This design allows researchers to bypass ethical concerns around withholding possibly beneficial treatments from participants allocated to a control condition,[20,21] which was essential if the design was to be regarded as ethical from a Pagan perspective. It is important in delayed-start trials to define adequate stage durations,[20] and this is usually based on information about the health condition being investigated. Because this study used a healthy sample, stage duration was based on information from interviews with Pagan practitioners about the intervention itself (Sonnex, 2017).[3], [22] Thus the study adopted the schedule given in Figure 1.

In accordance with the practitioner's preferred practice, trials were scheduled according to phases of the moon(to occur specifically during a waxing or full moon) and Participants were required to provide a photograph of themselves and a personal item as well as to complete a spell request form, outlining their desired outcome of the intervention so that spells could be

designed appropriately. The practitioner was able to reject any requests that she felt to be against her ethical principles and instead to use a generic request for an improvement in health and well-being. Participants were advised in the information and consent form that this may occur.

A body scan meditation was offered as part of the four group data collection sessions as a focal activity for participants, this was not part of the intervention and does not reflect standard Pagan practices. This activity was also intended to provide a way for participants to relax so that they could more accurately gauge their quality of life over the past week. The same 25-minute audio guided body scan meditation [26] was utilised in each session.

Figure 1 about here

Participants

Participants were gathered via the university's Research Participation System, using snowball sampling, and through adverts placed on the first author's social network page. Participation was restricted to persons aged 18 or over who had no debilitating medical conditions. It was made clear that the intervention was not intended as a substitute for conventional health treatments and if they had any concerns they should consult and receive treatment from an appropriately qualified health practitioner. Of 57 participants who volunteered to take part, 12 (21%) did not complete the programme, and one participant's request was deemed by the practitioner to not be appropriate even as a general request. Thus, 44 participants (30 F, 14 M; age range 18-55, mean = 24.0) completed the full programme.

The Practitioner was recruited from participants in an interview study (Sonnex, 2017).[4] 'Yarrowwitch' (pseudonym) has over 40 years' experience in Paganism, frequently conducts healing spells, and was confident she could be successful under the conditions of the study, which she explained were similar to her usual practice. Using a single practitioner ensured a homogeneous approach to all trials (in accordance with ~~our~~ previous recommendations),[7] which is especially important given the idiosyncratic nature of Pagan practice. To ensure model validity, no direction was given to the practitioner as to how rituals should be conducted.

Materials

Scepticism questionnaire

Pagan practitioners have reported that castee scepticism can have an impact on the success of spell work. Therefore, participants were asked to respond to three statements regarding their expectations using a 5-point Likert response scale (from 1 = Strongly disagree to 5 = Strongly agree): "I believe that distant healing is possible"; "I believe that Pagan spell casting works"; and "I believe that I can experience health and well-being changes over the course of this study". This questionnaire was only administered in the first session.

WHOQOL-BREF

Pagan practitioners have indicated that the spells they cast can have non-specific beneficial effects, so that wellbeing effects might only be captured by holistic outcome measures. The WHOQOL-100 was developed by the World Health Organisation to provide a holistic measure of quality of life.[23,24] The WHOQOL-BREF is an abbreviated form consisting of 26 items (one for each facet identified in the WHOQOL-100) organised into four domains, as outlined in Table 1, with two questions measuring general health and quality of life (QoL). All questions are measured on a five-point Likert scale..[5] The abbreviated scale has shown cross-cultural validity,[24,25] and has satisfactory discriminant and construct validity.[23]

Table 1 about here

The WHOQOL BREF asks participants to answer health and wellbeing questions based on their experience over the previous two weeks, but the manual states "It is recognised that different time frames may be necessary for particular uses of the instrument in subsequent stages of work ... and therefore changing the timescale may be appropriate".[23] Thus, in the present study participants were asked to complete the measure with reference to the previous two weeks at T0, but over the previous one week at T1, T2, and T3.

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Ethical Considerations

This study was approved by the University's Research Ethics Committee. It was emphasised that the study was an empirical assessment of a health intervention that was intended for people in general good health and participation should not be regarded as an alternative to conventional treatments for ill health. To allay any concerns about the nature of the spells, it was explained that the spellcasting involved only the intention to improve health and well-being. All items and photographs provided by participants were kept in a locked box to which only the researchers and practitioner had access, were transported to the practitioner via a secure delivery service to ensure participant confidentiality, and were returned to the participant at the end of the trial.

The practitioner was informed that the study should not be construed as a test of her abilities in any absolute sense; rather, the aim was to see if Pagan healing spells could operate under the same conditions as other forms of healing that have been tested with some success. No payment was made to the practitioner, and consent included an assurance that she would remain anonymous and would not try and use participation in the study for any personal gain.

Procedure

In total, eight four-week long trials were conducted with between 4 and 11 participants in each trial. Participants attended sessions once a week at the university. At T0 a plenary session was held during which the participants were given an overview of what would happen over the course of the trial, and any issues or questions were addressed. Participants then took part in the body scan meditation, completed the WHOQOL- BREF, the scepticism scale and the spell request form. Participants' provided their item and photograph, which were placed in envelopes and passed to the second author, who had no direct contact with the participants. He randomly allocated participants to group A or group B using random number tables. Materials for Group A members were sent to the practitioner and healing practices were conducted in the period between T0 and T1. At the T1 session participants discussed their experiences of the past week, completed the meditation followed by the WHOQOL-BREF. This process was repeated in the period between T1 and T2, but with healing practices conducted for Group B participants — participants were unaware of when the healing practices would occur. No workings were conducted in the period between T2 and T3, thus allowing for the measurement of any residual effects. At T3 participants convened to complete the final WHOQOL-BREF, to answer an open-ended question about their experiences during the trial period, and to retrieve their photographs and target objects. Practitioner debriefing occurred a day or two after spells had been conducted to allow her to give feedback on her casting experience.

Spell casting procedure

The practitioner provided an overview of the ritual she used. In line with the primary features of Pagan ritual, Yarrowwitch began by casting a circle and then invoked Aesculapius, the ancient Greek god of healing. A candle was placed on the altar with a salt lamp for each castee, along with their photograph and token. Yarrowwitch also used an incense blend of lavender, orange blossom, and thyme which are indigenous to Greece. The ritual itself involved reciting an Orphic hymn to Aesculapius that named each castee and their specific request, directing that their suffering be relieved and that they may live in good health and joy from that point forward. The ritual was then concluded, and the circle "closed".

RESULTS

The recommendations for future noncontact healing research,[7] stated that "Where multiple DVs are measured researchers should report appropriate omnibus tests before individual variable tests to avoid concerns over cherry picking". Thus a MANOVA test was used to establish if there had been any improvement in wellbeing over the duration of the study. Results showed a significant, positive change from T0 to T3 ($F = 4.02$, $p = .025$, $eta^2 = .149$); this result is due to significant positive changes only in general health ($F = 8.22$, $p = .006$, $eta^2 = .149$) and not quality of life ($F = .47$, $p = .498$, $eta^2 = .010$).

Changes in the four individual domains across the whole trial period were examined using separate ANOVAs (see Table 2), and showed significant improvements in the Physical and Psychological domains but not in the Social and Environmental domains.

Table 2 about here

When analysing the spell requests made by participants it was discovered that the majority of requests fell into the Psychological domain (which shows the greatest increase in wellbeing) followed by the Physical domain, the Social domain and finally the Environmental domain. This suggests that participants showed the greatest improvements in the areas requested for in the intervention.

To gauge whether changes in wellbeing were associated with expectations of an effect, participants' scepticism scores were correlated against changes in domain scores from T0 to T3. Pearson's r correlations are given in Table 3. All of the associations are close to zero and are nonsignificant.

Table 3 about here

Effects of Group A intervention

It was predicted that Group A would show a greater improvement compared with Group B on all outcomes between T0 and T1 (the period during which they received the healing intervention). Differences in outcome scores between T0 and T1 were calculated using MANOVA, and are summarised in Table 4. These indicate no significant differences between the two groups on any of the six outcome domains.

Table 4 about here

Effects of Group B intervention

It was predicted that Group B would show a greater improvement compared with Group A on all outcomes between T1 and T2. MANOVA analysis was conducted as previously, and results are given in Table 5. Again, no differences are evident to indicate any noncontact healing effect.

Table 5 about here

DISCUSSION

In this randomised controlled trial to assess whether Pagan spellcasting can produce evidence of noncontact healing participants do show an improvement across the length of the study in domains directly related to their spell requests, which is suggestive of an effect of the intervention; the small but significant effect sizes are consistent with earlier reviews of noncontact healing RCTs.[1,7] However, the lack of significant group differences during the intervention periods suggests that Pagan spellcasting was not the immediate cause of changes in health and wellbeing. The lack of group differences in T0-T1 (favouring Group A) and T1-T2 (favouring Group B) may be the result of inadequate stage durations; although practitioners have reported that they expect effects to be realised quickly, one week may be insufficient time for them to be measurable (as found for some allopathic treatments).[27-29] There may also be 'carry over effects', with members of Group A continuing to show improvements in the period T1-T2, such that they might obscure any changes shown by Group B participants. ~~We~~ It should be noted that the recommended timescale for the WHOQOL BREF is two weeks and that reducing that timeframe may have also reduced the sensitivity of the scale to change. Although the WHO state that the timeframe can be changed as required by the research, no indication is given of the impact this may have on the reliability and validity of the scale.[23]

Of course, it is possible that improvements in health and wellbeing across the duration of the study are a result of Hawthorne or placebo effects. In considering the latter possibility, ~~we~~ it

should be noted that scores on an initial scepticism measure were not correlated with any outcome, indicating that participants' expectations of the efficacy of the intervention were not directly related to their scores.

Relatedly, improvements seen across the period of study may have resulted from the mindfulness meditations that participants completed during the trial. There is strong evidence to suggest that such practices can have a positive impact on physical health and psychological well-being.[30,32] However, improvements such as working memory capacity, decreased rumination, and decreased emotional reactivity are predicated upon the amount of meditation practice,[30] so ~~that we~~ it remains ~~sceptical~~ unlikely that four 25-minute body scan meditations provided over four weeks could produce the improvements observed. Notwithstanding this, ~~we~~ the researchers are grateful to an anonymous referee for ~~directing us to~~pointing out evidence that challenges ~~our~~ this view.[33-34] There are alternatives to having people come together to collect data, such as experience sampling methodologies[35] which would eliminate the possibility of a mediation effect entirely.

Despite addressing a number of concerns raised by previous reviews of CAM research, this study still suffers from some of the methodological issues that affect other studies in this area, including low power and the narrowed scope for improvement in wellbeing in healthy participants. Considering that this research has not been attempted before, some issues with experimental design are to be expected, and it is hoped that this research will act as a catalyst for further research with this special population. Recommendations for future research include adoption of a larger sample size, the use of a clinical population who might be more sensitive to wellbeing interventions, and a design that utilises expanded epochs that allow for delays in interventions taking effect. Whilst the decision to use a single practitioner in this study was based upon recommendations[7] this may also be a limitation given the likelihood of individual differences between practitioners. Future research should explore this possibility by utilising

multiple practitioners, with participants only receiving the intervention from a single practitioner to ensure ecological and model validity.

Nevertheless, the findings from this study do give encouragement that with some adjustments it is possible to accommodate the experiences of healers into trial design without compromising on quality or rigour. It is important for future noncontact healing researchers to engage with practitioners for whom healing is a lived experience.

CONCLUSIONS

The aims of this study were to show how recommendations made by Roe at al[7] might be implemented in subsequent RCT designs that test claims for noncontact healing, and to explore whether claims for the efficacy of Pagan healing practices could be tested within an RCT paradigm. The study described here was successful insofar as it was able to demonstrate that an improvement in wellbeing can be produced within an RCT test of Pagan spellcasting. The fact that these improvements could not be attributed to the healing intervention per se, despite the domains of improvement reflecting participant requests, highlights areas for improvement in future research with Pagan healers. Given that this is a tradition that incorporates healing as a central tenet and has clearly prescribed practices designs, we would argue that such research would be worthwhile.

Author Disclosure Statement

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