Identifying and prioritising important research questions for the treatment of vitiligo

Research proposal

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Contact details:

Dr Viktoria Eleftheriadou MD
Research associate
Centre of Evidence Based Dermatology
Room A103
King's Meadow Campus
Lenton Lane
The University of Nottingham
Nottingham
NG7 2NR
Tel: +44 (0)115 846 8633
Fax: +44 (0)115 846 8618
Email: viktoria.eleftheriadou@mottingham.ac.uk

Background

Skin diseases are very common, affecting over a quarter (26.26%) of the population in England and Wales (Schofield et al., 2008). Although not life threatening, skin conditions can impact on quality of life through their symptoms (i.e. itching') and the psychosocial distress they cause (Williams, 1997). The psychosocial effects of skin disease can be considerable, with those affected reporting depression, low self-esteem, social isolation and difficulties forming relationships (Barankin & DeKoven, 2002). Vitiligo, which results in depigmentation of the skin, in particular can have a devastating impact on quality of life. Although, vitiligo is not symptomatic, evidence suggests that those affected by the condition can suffer from poor self-image (Porter et al., 1979) and low self-esteem (Papadopoulos et al., 1999) and report difficulties in sexual relationships (Porter, 1990). The disease can be particularly devastating for individuals from particular ethnic origins, for two reasons: the stigma associated with vitiligo amongst certain ethnic groups and the contrast of vitiligo patches against dark skin, which make the condition more visible (Mattoo et al., 2002). The exact cause of vitiligo is unknown and the course of the disease is unpredictable (i.e. the vitiligo patches can spread rapidly or improve spontaneously) (Whitton et al., 2006). This knowledge can be particularly worrying for those affected by the condition. Historically, vitiligo has been regarded as little more than a cosmetic problem and has subsequently received limited funding for research; despite its substantial impact on quality of life. Over the years a range of treatments have been tested in an attempt to repigment the patches or halt the spread of the disease (Whitton et al., 2006). Those that have been tried have had various levels of success and in some cases new areas of depigmentation have occurred or pigment loss has returned in the areas that gained repigmentation with treatment (Whitton et al., 2006). Consequently, the patient's quality of life is not necessary improved. People with vitiligo and clinicians often have to choose which treatments for vitiligo to try. It is important that these decisions are informed by up-to-date information about the effectiveness of treatments, based on research findings. Unfortunately, up-to-date information about the effects of treatments is not always available and consequently people with vitiligo and clinicians are faced with an 'uncertainty' about treatments.

The Centre of Evidence Based Dermatology (CEBD) at the University of Nottingham (UoN) in collaboration with the James Lind Alliance (JLA) will undertake a prioritisation exercise to identify uncertainties about treatments for vitiligo and prioritise them for future research. This research study is part of a wider research programme called 'Setting Priorities and Reducing Uncertainties for People with Skin Disease' (SPRUSD), which is funded by the National Institute for Health Research. The JLA aims to *'promote partnerships of patients and clinicians and to identify and prioritise unanswered questions about the effects of treatments'* (Firkins, 2005) and was founded by The James Lind Library, The Royal Society of Medicine and INVOLVED. The JLA was set up due to an increasing awareness that researchers do not always trial treatments that are considered important to patients and clinicians (Chalmers, 2004, cited in Buckley et al., 2007). Clinical trials are often influenced by funding and academic priorities (Altman, 1994, cited in Whitton, n.d.) and therefore do not necessarily answer questions that are important to patients and clinicians. It is paramount that patients and clinicians' questions about treatments are considered and their research preferences are taken into account and acted upon. This will assist in ensuring that trials are not designed without input from patients and clinicians and commence only when there are known uncertainties about the effects of a treatment, which is considered a priority for research by both patients and clinicians. The purpose of the JLA is to identify and compile possible research areas that are supported by patients and clinicians and will be of interest to researchers and funding bodies (Firkins, 2005). The JLA works by *'harvesting patients and* *clinicians unanswered questions about the effects of treatments'* (Firkins, 2005). These unanswered questions (herein referred to as uncertainties) are entered in a Database of Uncertainties about the effects of Treatments (DUETs) available at www.duets.nhs.uk. DUETs is a NHS system that has been established to collate and publish uncertainties about the effects of treatments (Crowe, 2006, cited in Buckley, 2007).

Aim

The purpose of this research is to identify uncertainties about the treatments of vitiligo and establish research priorities. In order to identify uncertainties about treatments for vitiligo a JLA prioritisation exercise will be undertaken. The prioritisation process will involve surveying individuals with vitiligo (and their parents) and clinicians, to find out what their uncertainties are with regards to the effects of treatments for vitiligo. Uncertainties identified will be prioritised into those that individuals with vitiligo (and their parents) and clinicians deem important. The uncertainties identified will lead to priority research, which will be developed into a feasibility study and subsequently a trial proposal ready for submission to a relevant funding body.

Methodology

The JLA process has three stages which are initiation, consultation and collation, and prioritisation, which are based on the nominal group technique (Van de Van and Delbecq, 1971).

Initiation

The first stage involves initiating the research through consultation with relevant organisations, in particular those that can advocate and represent people with vitiligo; individuals with vitiligo (and their parents); and clinicians with an interest in vitiligo. The purpose is to raise awareness and establish a JLA 'working partnership', whose role will be to prioritise the treatment uncertainties. Individuals and organisations are required to become affiliates of the JLA in order to become members of the 'working partnership'. To raise awareness about the research study and to build a 'working partnership', relevant organisations (e.g. Vitiligo Society, Changing Faces, UK Clinical Trials Network, British Association of Dermatologists, British Skin Foundation, British Association of Skin Camouflage, British Red Cross Camouflage Service, Skin Care Campaign) and individuals (such as clinicians with an interest in vitiligo) will be contacted in writing and informed of the prioritisation exercise. The letter will outline the study and explain that we are recruiting people to take part in a study, which aims to identify uncertainties about treatments for vitiligo and set priorities for research. Those organisations interesting in becoming members of the 'working partnership' will be asked to appoint a representative to attend an exploratory meeting. Representatives and individual clinicians will be asked to sign a 'response slip' indicating that they are able to attend the meeting. The organisations will be acting as advocates for their members; however it is essential that individuals with vitiligo (and their parents/carers), directly participate in the prioritisation exercise. In order to recruit these individuals' relevant organisations will be asked to advertise the prioritisation process through various communication channels. For example, the Vitiligo Society will be asked to advertise the prioritisation exercise in their newsletter and also on their website. The article will explain the research study and those interested in taking part will be asked to complete a 'response slip' indicating their availability to attend the exploratory meeting. The response slip will be included in the newsletter and available on a website (www.sprusd.co.uk) established specifically for the research programme. A link to the website will be available on the Vitiligo Society's website. The purpose of the exploratory meeting is to discuss the prioritisation process in detail and the role of the 'working partnership'. Following the meeting those interested in becoming members of the 'working partnership' will be asked to complete a registration form and declaration of interest form. The registration form officially registers individuals as members and obtains personal information including: name, position or job title, contact address, telephone number and email address. Only staff at the JLA and researchers at the CEBD, directly involved in the study, will have access to members contact details, although other members of the 'working partnership' will know the names and organisations of others in the partnership. The declaration of interest form aims to explore why individuals have expressed an interest in becoming involved in vitiligo research and also requests that they provide details of any competing interests. Organisations will be excluded from participating if they are considered to have conflicts of interest that may affect their views (Buckley, 2007).

Consultation and collation

The consultation and collation stage consists of collecting uncertainties, about the effects of treatments for vitiligo, from people with vitiligo (and their parents) and clinicians with an interest in vitiligo. The uncertainties will be gathered through a self-completion survey. The survey has been designed to capture the participant's uncertainty about the effects of treatments for vitiligo. Literature skills were considered when developing the surveys and consequently they have been designed to be simple in reading ability. Surveys were chosen as the data collection method because there is no potential for interview bias (Grey, 2004) or interview effects (Aldridge and Levine, 2001). Furthermore because the researcher does not have to be present whilst the survey is completed, the sample can be drawn from a wide geographical area (Aldridge and Levine, 2001). For practical and ethical reasons, the parents of children with vitiligo, will be asked to complete a survey on their child's behalf.

It is anticipated that approximately 100 individuals will be recruited to take part in this study. Ideally random selection of participants would have been used; however time constraints, budgets and the sample to be recruited meant that this was not plausible. Consequently, the sample will be recruited utilising a combination of sampling methods including volunteer sampling, purposive sampling and convenience sampling. Volunteer sampling involves recruiting participants that have expressed in interest in participating, through contacting the researcher and volunteering to take part (Grey, 2004). Within this study most individuals will be recruited after they have volunteered to take part, in response to an advert. Purposive sampling involves selecting a sample with attributes of interest to the researcher (Aldridge and Levine, 2001). Within this study, articles will be placed in newsletters and on websites targeting the population of interest. Convenience sampling consists of deliberately targeting and selecting participants (Aldridge and Levine, 2001). Individuals with vitiligo who are in contact with the CEBD and the JLA will be directly contacted, informed of the study and asked if they would like to participate. These sampling methods have been chosen in order to recruit as larger sample as possible from the population of interest.

It is anticipated that the study will be advertised on the websites and in the newsletters of relevant organisations, such as those that target the population of interest (e.g. Vitiligo Society, Changing Faces, UK Dermatology Clinical Trials Network, British Skin Foundation and the JLA). The article in the newsletters will be accompanied by a survey and information sheet. Individuals wishing to participate will be asked to complete the survey and return it in the stamped addressed envelope provided or go to the study website www.vitiligo.org.uk and complete the survey online. The article on the websites of relevant organisations will provide a link to www.vitiligo.org.uk where a survey will be available to complete online. Posters detailing the research study will be situated in relevant areas and settings and an advert highlighting the study will be placed in local newspapers.

The information sheets have been designed to be easy to understand and provide the names of the investigators and outline the importance of the study, what the study involves, the voluntary nature of the study, the complaints procedure, the confidential and anonymous nature of the research (Oppenheim, 2000), when and where the results of the study will be published, the name of the organisation commissioning the study and the organisation undertaking the study. In addition, the investigators contact details are provided so that the participants can make enquiries and inform the investigators if they decide to withdraw from the study. Completing the survey will be considered consenting to participate in the research and allowing the uncertainties provided to be published on DUETs. The uncertainties provided by participants may be reported using their exact words, however participants will be assured anonymity as their name will not be revealed when the data is published. To ensure anonymity, all data will be stored safely and securely. Electronic files containing data will be password protected and hard copies of data (e.g. surveys) will be stored in a locked filing cabinet, with only the investigators directly involved in this study having access, in accordance with the Data Protection Act (1998).

Initially a pilot study will be conducted to assess the effectiveness of the survey. A small sample (approximately 15) will be recruited for the pilot study. Following the pilot study, necessary amendments will be made and the full study will be implemented.

Prioritisation

The uncertainties gathered from the surveys will be assembled and refined and any similar uncertainties will be combined, where appropriate (Buckley, 2007). An exercise will be undertaken to ensure that the uncertainties gathered have not been answered by previous research. This will be done by exploring systematic reviews of treatments for vitiligo. After this process the remaining uncertainties will be entered into a spreadsheet and into DUETs. During the interim prioritisation exercise vitiligo study website will be developed to allow participants to rank gathered uncertainties online.

The individuals wishing to participate will be asked to choose their top 3 uncertainties and to complete their demographics details. Same demographic questions will be repeated as per initial stage of survey, such as age, sex, relation to the subject (patient, clinician, parent or carer of child with vitiligo etc). ***The steering group would also like add the ethnicity question as we feel that it is important to know the ethnic grouping of participants for this work given the nature of the condition***

Paper copy of the list of DUETs uncertainties will be available as well. A link to the website will be sent via email to those people, who participated in the **Consultation and collation** stage and who expressed interest in participating in the next stage of the prioritisation exercise. It is anticipated that the study will be advertised on the websites and in the newsletters of relevant organisations, such as those that target the population of interest (e.g. Vitiligo Society, BDNG, and Camouflage network, Changing Faces, UK Dermatology Clinical Trials Network, British Skin Foundation and the JLA). Individuals wishing to participate will be asked to go to the study website www.vitiligo.org.uk and complete the ranking exercise online. A paper copy of the ranking exercise will be available to download or by contacting us directly. We will send the paper copy with a stamped addressed envelope to these individuals.

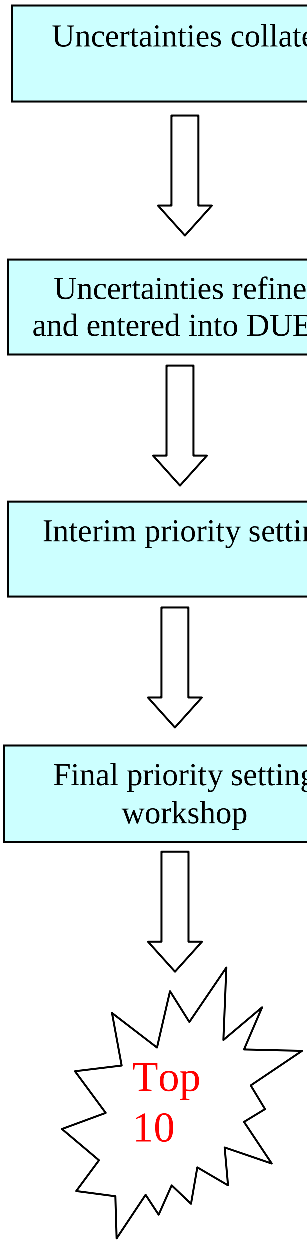
Posters detailing the research study will be situated in relevant areas and settings and an advert highlighting the study will be placed in local newspapers.

The participants will be asked to submit their top 3 uncertainties within one month, by email or post. The received uncertainties will be pooled and a top 20 (maximum 30) will emerge to be discussed in a Final Prioritisation Workshop.

A selection of those who take part in ranking the uncertainties will also be asked to join the "working partnership" for the project, and to attend the Final Prioritisation Workshop in London. Individuals wishing to participate will be asked to provide their contact details for this purpose.

All members of the 'working partnership' will be invited to a one day workshop in order to discuss the 20 uncertainties obtained through the interim prioritisation exercise (all travel costs will be reimbursed). The setting of the workshop will be decided in consultation with the steering group, but is likely to take place at the British Association of Dermatologists (located in London). During the workshop the 'working partnership' will work together to decide upon the top 10 uncertainties for future research (Buckley, 2007). The 'working partnership' will be separated into small groups and asked to discuss each others individual ranking of the uncertainties. Each group will have a set of cards referring to each of the uncertainties and will therefore be able to move these around as opinions are expressed. After discussing individual preferences each group will be asked to collectively rank the uncertainties using the Diamond 9 method, whereby a diamond/triangle shape is constructed with the most important uncertainties at the top. The ranked uncertainties from each group will be reported to the facilitator (a member of staff from the JLA) and pooled to give an aggregated score for each uncertainty. The small groups will then be combined into two larger groups and the aggregated list of uncertainties will be discussed. Each group will be asked to agree a list of top 10 uncertainties. Both groups will be asked to reveal their top ten uncertainties and these will be pooled to achieve a revised and final list of top ten uncertainties. The top uncertainty will be used to inform a feasibility study and subsequent trial proposal ready for submission to a relevant funding body.

Figure 1: Diagram of the JLA prioritisation process



Measurable points

The measurable points of this research study include the uncertainties gathered, refined and entered into DUETs and the top ten uncertainties, which will be used to inform a feasibility study and a subsequent trial proposal ready for submission to a relevant funding body.

Time line

April –November 09:

- The study will be advertised in the newsletters and on the websites of relevant organisations and surveys made available.
- An advert will be placed in national and local newspapers advertising the research study and posters will be situated in relevant areas and settings.
- Organisations and individual clinicians will be contacted and invited to be part of the ‘working partnership’.
- Members of the ‘working partnership’ will register as affiliates of the JLA.
- Uncertainties will be gathered, refined and entered into a database and also uploaded onto DUETs.

January 09 – February 2010:

- The interim priority process will take place, whereby members of the ‘working partnership’, will individually select and rank their top ten uncertainties for prioritisation.

March 2010:

- The final priority workshop will take place.

References

Al’Abadie, MS., Kent, GG., & Gawkrodger, DJ. (1994). The relationship between stress and the onset and exacerbation of psoriasis and other skin conditions. *British Journal of Dermatology*, 130: 199-203.

Aldridge, A. & Levine., K. (2001). *Surveying the social world: principles and practice in survey research.* Buckingham: Open University Press

Barankin, B., & DeKove, J. (2002). Psychosocial effect of common skin diseases. *Canadian Family Physician*, 48: 712-716.

Buckley, B., Grant, AM,. Firkins, L., Green, AC., & Frankau (2007). Working together to identify research questions. Continence UK, 1: 76-81.

Firkins, L. (2005). *The James Lind Alliance newsletter. Winter 2005.*

Grey, DE. (2004). *Doing research in the real world.* London: Sage Publications

Mattoo, SK., Handa, S., Kaur, I., Gupta., & Malhotra, R. (2002). Psychiatric morbidity in vitiligo: prevalence and correlates in India. *Journal of the European Academy of Dermatology and Venereology*, 2002, 16: 573-587.

Oppenheim, AN. (2000). *Questionnaire design, interviewing and attitude measurement.* London: Continuum

Papadopoulos L., Bor, R., & Legg, C. (1999). Coping with the disfiguring effects of vitiligo: a preliminary investigation into the effects of cognitive therapy. *The British Journal of medical Psychology*, 72: 835-96.

Porter J., Beuf, AH., Nordlund JJ., & Lerner, A. (1990). The effects of vitiligo on sexual relationships. *Journal of American Academy of Dermatology*, 22: 221-222.

Porter, J., Beuf, AH., Nordlund JJ., & Lerner, A. (1979). Personal responses of patients to vitiligo. The importance of the patient-physician interaction. *Archives of Dermatology*, 114: 1384-1385.

Schofield, JK., Grindlay, D., & William, H. (2008). *The burden of skin disease in the United Kingdom.* Nottingham: The Idea Congress, 7th-9th September.

Van de Van, A., & Delbecq, AL. (1971). Nominal versus interacting group processes for committee decision-making effectiveness, *Academy of Management Journal*, 14: 203-212.

Whitton, ME., Ashcroft, DM., Barrett CW. & González U. (2006). *Interventions for vitiligo. Cochrane Database of Systematic Reviews.* John Wiley & Sons Ltd.

Whitton, M. (n.d.). *The James Lind Alliance: an important initiative in fostering good research practices in all spheres of medicine. Campaign News.*

Williams, HC., (1997). Dermatology. In: A. Stevens & J. Raftery. *Dermatology: health care needs assessment. The epidemiologically based needs assessment reviews.* Oxon: Radcliffe Medical Press Ltd, 1997, pp.1-50.