# Anxiety Apps for People With and Without Chronic Pain: A Questionnaire Study

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# MAIN FINDINGS

- There is widespread willingness among UK adults who experience anxiety to use anxiety-focused apps to help cope with symptoms.
- Lack of key motivating factors to use an anxiety-focused app such as strong scientific backing, information particular to the user's situation, and ability to use an app independently (as and when needed, without the input of another person) - are barriers to use
- Views were similar between participants with anxiety and chronic pain and those with anxiety alone.

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# BACKGROUND

The co-occurrence of chronic pain and anxiety has been shown to have a negative impact on a patient's outcomes and quality of life.

Despite widespread willingness to use anxiety-focused apps, an understanding of what motivates and acts as barriers to people using anxiety-focused apps is lacking.

There is also a gap in knowledge surrounding what effects the presence of chronic pain has on people's views about anxiety-focused apps.

## AIMS

**AIM 1** Determine the willingness, motivators and barriers of UK anxiety sufferers in using an anxiety-focused app.

AIM 2 Determine if views of those who experience anxiety and chronic pain differ from those who experience anxiety alone.

# RESULTS

There were 187 completed and usable questionnaires which was a representative sample.

#### AIM 1: Willingness

72.7% (n=136) liked the idea of using an app to help with their anxiety.

81.8% (n=153) were willing to learn to use an anxiety-focused app.

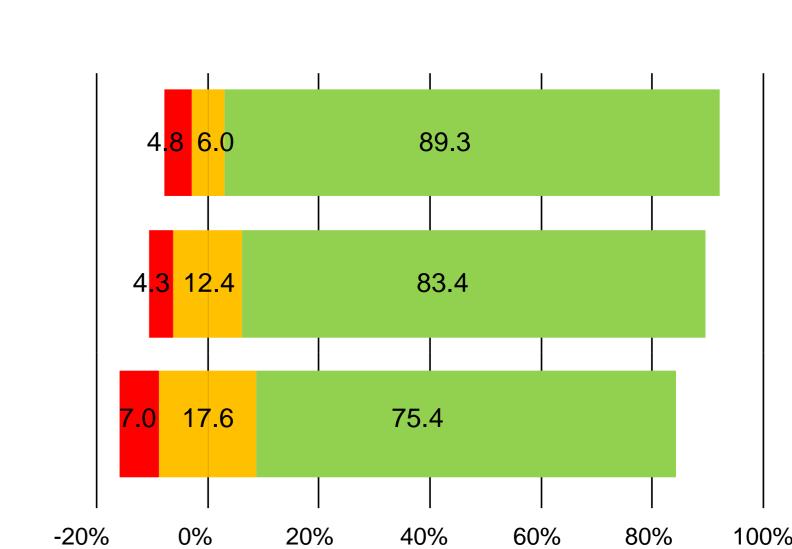
# 14.4 12.8 72.7 9.6 8.6 81.8 -40% -20% 0% 20% 40% 60% 80% 100%

#### **AIM 1: Motivators**

89.3% (n=167) were motivated to use an app that allowed independent use.

83.4% (n=156) were motivated to use an app with relevant information to their situation.

75.4% (n=141) were motivated to use an app if it had strong scientific backing.



#### **AIM 1: Barriers**

An app not being "private and confidential" was a barrier.

Lack of motivating factors were also a barrier to use – lack of scientific backing (59.4%, n=111) and lack of information relevant to the users situation (75.9%, n=142).

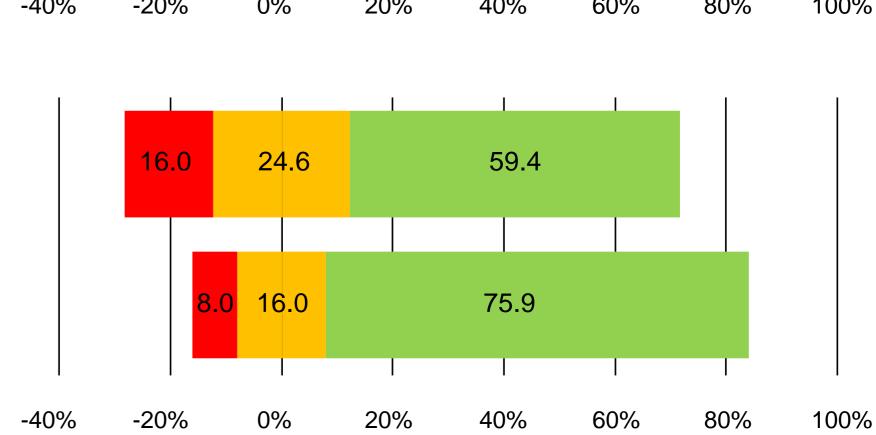


Figure 1. Percentage agreement to seven of the 31 opinion statements

### **METHODS**

# **Questionnaire Design**

A digital questionnaire was completed by adults currently living in the UK who experienced anxiety, with a subset also experiencing chronic pain.

The questionnaire asked how strongly participants agreed or disagreed to **31 statements** which focused on willingness, motivators and barriers to using anxiety-focused apps. Data was gathered via 5-point Likert scales and free text responses.

#### Quantitative Data Analysis Methods

For all quantitative data, descriptive statistics were calculated. For comparing responses from participants who fell into different groups, **binomial logistic regression** was used on dichotomised data with an **odds ratio** and 95% confidence interval calculated.

# **Qualitative Data Analysis Methods**

An inductive Braun and Clarke six-phase approach to **thematic analysis** was used.

#### **AIM 2: Different Views**

Responses were sub-grouped based on: age, gender, presence of chronic pain, self or professionally diagnosed anxiety (and chronic pain if relevant), length of time experiencing anxiety (and chronic pain if relevant), and areas of the body affected by chronic pain.

Five statements showed large effect sizes with significant, but wide, confidence intervals either between different age brackets, or between participants with self or professionally diagnosed chronic pain.

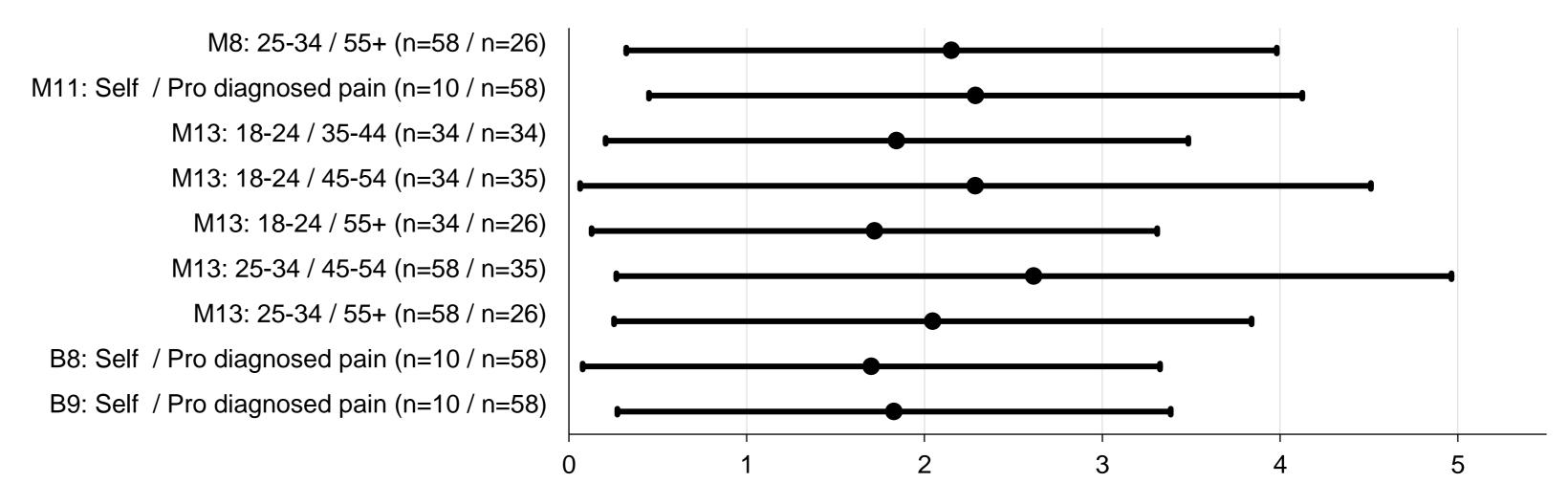


Figure 2. Natural log of the effect size (odds ratio) and 95% confidence interval for comparison groups with large effects size



