Bone & Joint Open

Supplementary Material

10.1302/2633-1462.28.BJO-2021-0056.R1

1. Tables.

Table i. Patient demographic details and responses to subjective measures, stratified by duration on waiting list.

Characteristic	Shortest	Middle	Longest	Total
	(n = 346)	(n = 293)	(n = 249)	(n = 888)
Sex, n (%)				
Female	175 (51)	145 (50)	126 (51)	446 (50)
Male	171 (49)	148 (51)	123 (49)	442 (50)
Mean age, yrs (SD)	61.83 (15.1)	62.86 (13.4)	65.10 (12.6)	63.09 (13.9)
Mean pain scale (SD)	6.28 (2.4)	6.34 (2.5)*	6.14 (2.59)	6.26 (2.5)
Mean mood (SD)	5.15 (2.7)	5.26 (2.8)*	4.82 (2.76)	5.09 (2.7)
Mean Health VAS (SD)	54.80 (25.1)	55.12 (25.4)	58.40 (38.9)	55.91 (29.7)
Activity level, n (%)				
Active	136 (41)	135 (48)	97 (41)	368 (43)
Inactive	122 (37)	95 (33)	98 (41)	315 (37)
Sedentary	75 (23)	52 (18)	42 (18)	169 (20)
Mean GAD2 (SD)	2.1 (2.2)	2.4 (2.3)	2.1 (2.3)	2.2 (2.2)

*The 'middle' cohort had higher mean pain (6.34) and mood (5.26) scores than the other two groups; it is likely the longer waiters had therefore adapted better to their symptoms by adopting more ways to cope than those who had struggled for a shorter duration of time.

GAD, generalized anxiety disorder scale; SD, standard deviation; VAS, visual analogue scale.

Table ii. Patient opinions regarding attending for their proposed surgical intervention, stratified by duration on waiting list.

Variable	Shortest	Middle	Longest	Total
	(n = 346)	(n = 293)	(n = 249)	(n = 888)
Mean symptom duration, mths (SD)	80.82 (144.4)	63.41 (108.2)	71.39 (99.6)	72.46 (121.8)
Mean EQ-5D (SD)	0.48 (0.3)	0.48 (0.3)	0.53 (0.31)	0.49 (0.3)
Proceed with operation? n (%)				
No	20 (6)	11 (4)	15 (7)	46 (6)
Yes	306 (94)	258 (96)	211 (93)	775 (94)
Delay operation? n (%)				
No	249 (79)	207 (79)	168 (79)	624 (79)
Yes	65 (21)	54 (21)	45 (21)	164 (21)
GAD category, n (%)				
Not anxious	194 (65)	157 (61)	144 (66)	495 (64)
Anxious	103 (35)	99 (39)	74 (34)	276 (36)

Generalized anxiety disorder (GAD) score of ≥ 3 used as a cut-off for 'anxious' versus 'not 'anxious'.

EQ-5D, EuroQol five-dimension questionnaire; SD, standard deviation.

Table iii. Patient responses to the question, "what have you tried at home to improve your symptoms?"

Response	Shortest	Middle	Longest	Total
	(n = 346)	(n = 293)	(n = 249)	(n = 888)
Nothing, n (%)				
No	285 (82)	236 (81)	206 (83)	727 (82)
Yes	61 (18)	57 (20)	43 (17)	161 (18)
Medication, n (%)				
No	188 (54)	163 (56)	143 (57)	494 (56)
Yes	158 (46)	130 (44)	106 (43)	394 (44)
Ice/heat, n (%)				
No	257 (74)	214 (73)	187 (75)	658 (74)
Yes	89 (26)	79 (27)	62 (25)	230 (26)
Exercise, n (%)				
No	210 (61)	187 (64)	160 (64)	557 (63)
Yes	136 (39)	106 (36)	89 (36)	331 (37)
Rest, n (%)				
No	209 (60)	171 (58)	162 (65)	542 (61)
Yes	137 (40)	122 (42)	87 (35)	346 (39)
Other, n (%)				
No	302 (87)	257 (88)	221 (89)	780 (88)
Yes	44 (13)	36 (12)	28 (11)	108 (12)

2. Detailed local action plan

Adopting the '3C' approach to address each theme raised by patients. This table provides more detail on our proposed local strategy to address the issues raised by patients.

HEARING YOUR CONCERNS			
THEME	**OBSERVATIONS**	**ACTIONS**	**ADDITIONAL RESOURCES REQUIRED**
A point of contact	Patients want a clear point of contact to address queries	Liaise with waiting list team and clinic letter dictation team to better highlight contact details for queries In clinic ensure this number is made available to patients	Waiting list team email mailbox resource to enable better handling of more patient calls Safety netting with minimal extra staffing resource need; local standard operating procedure (SOP) based upon 4-tier ladder of support for non-clinicians to better triage patient queries
Health and safety (Covid-19 measures)	Now increasingly familiar measures (masks, fewer patients, distancing measures, hand gel)	Remain up to date with Trust/NHSE guidance in our clinical settings Revisit patient-facing staff training from 1st wave	Ongoing PPE resource needs Ongoing training resources (staff, equipment, time)

HELPING YOU COPE			
THEME	**OBSERVATIONS**	**ACTIONS**	**ADDITIONAL RESOURCES REQUIRED**
Access to Doctors/Pain management	Need to better manage changes to pain while on waiting list Need better access to clinicians (*see also 'point of contact')* Need more information on treatments to try while waiting	Improved safety netting at booking (self-care guidance links on website, with link added to clinic letter template by default) Better access to responsible clinician for any queries while on waiting list (e.g. via a new virtual/F2F consultation as	Patient information website Access to locally designed NHS MSK physiotherapy app Identify additional self-care resources (with clinical

		appropriate to assess need for expedited procedure)	psychology and pain management teams)
QoL deterioration and Psychosocial support	Need to help support chronic as well as acute issues (e.g., deterioration in mental health while waiting) Overall mental health/mood should improve as other support aspects improve	Discuss with clinical psychologist, pain management and physiotherapy/occupational therapy teams to better signpost patients Develop a standardised protocol for dealing with acute mental health issues: • Responsible clinician to arrange same-day phone consultation with patient • Inform patient's GP via telephone • Inform mental health crisis team (if relevant), direct patient towards support	Establish links with clinical psychology/ mental health support teams Aiming to better signpost patients to appropriate services.

MORE ENGAGED CATCH UP			
THEME	**OBSERVATIONS**	**ACTIONS**	**ADDITIONAL RESOURCES REQUIRED**
Accepting technology	Patients generally increasingly accepting of technological advancements and alternative consultation approaches Need to ensure suitable patients are selected for virtual (i.e., telephone/video) consultations Need better access to IT in outpatient settings (telephones, webcam)	Develop agreed protocol for virtual clinic booking Arrange virtual clinic appointments for existing patients with joint clinician-patient agreement (e.g., at end of clinic visit/ pre-discharge), and ensure this is documented in letters, notes, booking paperwork Provide guidance on virtual consultations Adopt video consultations where appropriate Changes to practice to give patients a broader time slot	Patient information website Increase equipment availability for telephone/video consultations for 'in-between' formal clinical encounters

		(e.g., 2-5pm) rather than a set time for telephone consultations (as often take place in-between face to face consultations)	
Information about delays and updates	A key point to action: patients wish to know roughly where there are on the waiting list alongside an approximate timeframe for intervention Need to present more information about delays and changes to waiting times	Liaise with waiting list team. Adopt strategies utilised by other industries (e.g., aviation/transport) with the aim to send regular (e.g., monthly) update SMS with approximate length of wait and contact details Develop a live patient-facing dashboard on new waiting list website	Patient information website with live website dashboard Waiting list team resource to send more regular updates Improved messaging software

3. Infographic

Feeding back the study findings to patients (see separate image file).

4. STROBE statement.

Checklist of items that should be included in reports of observational studies.

	Item No	Recommendation	Page No
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1-2
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	1-2
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3-4
Objectives	3	State specific objectives, including any prespecified hypotheses	3-4
Methods			
Study design	4	Present key elements of study design early in the paper	4-6
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	4-6
Participants	6	(*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study*—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants	4-6
		(*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed *Case-control study*—For matched studies, give matching criteria and the number of controls per case	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	4-6
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	4-6
Bias	9	Describe any efforts to address potential sources of bias	4-6 9-14
Study size	10	Explain how the study size was arrived at	4-6
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	4-6
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	4-6
		(*b*) Describe any methods used to examine subgroups and interactions	4-6
		(*c*) Explain how missing data were addressed	4-6
		(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed *Case-control study*—If applicable, explain how matching of cases and controls was addressed *Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy	4-6
		(*e*) Describe any sensitivity analyses	4-6

Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	6-9
		(b) Give reasons for non-participation at each stage	6-9
		(c) Consider use of a flow diagram	6-9
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	6-9
		(b) Indicate number of participants with missing data for each variable of interest	6-9
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	
		Cross-sectional study—Report numbers of outcome events or summary measures	6-9
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	6-9
		(*b*) Report category boundaries when continuous variables were categorized	6-9
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	N/A
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	6-9
Discussion			
Key results	18	Summarise key results with reference to study objectives	9-14
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	9-14
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	9-14
Generalisability	21	Discuss the generalisability (external validity) of the study results	9-14
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	15

*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.