ANEXOS

Anexo 1

Critical Appraisal Skills Programme (CASP)
making sense of evidence
10 questions to help you make sense of qualitative research

This assessment tool has been developed for those unfamiliar with qualitative research and its theoretical perspectives. This tool presents a number of questions that deal very broadly with some of the principles or assumptions that characterise qualitative research. It is *not a definitive guide* and extensive further reading is recommended.

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of qualitative research:

→ •Rigour: has a thorough and appropriate approach been applied to
→ •key research methods in the study?
→ •Credibility: are the findings well presented and meaningful?
→ •Relevance: how useful are the findings to you and your organisation?

The 10 questions on the following pages are designed to help you think about these issues systematically.

The first two questions are screening questions and can be answered quickly.

If the answer to both is "yes", it is worth proceeding with the remaining questions.

A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

		Yes	Can't tell	No
Screening Questions	1. Was there a clear statement of the aims of the research? *Consider:* *- what the goal of the research was* *- why it is important* *- its relevance*			
	2. Is a qualitative methodology appropriate? *Consider:* *- if the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants*			
Detailed Questions	3. Was the research design appropriate to address the aims of the research? *Consider:* *- if the researcher has justified the research design (e.g. have they discussed how they decided which methods to use?)*			
	4. Was the recruitment strategy appropriate to the aims of the research? *Consider:* *- if the researcher has explained how the participants were selected* *- if they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study* *- if there are any discussions around recruitment (e.g. why some people chose not to take part)*			

Detailed Questions	5. Were the data collected in a way that addressed the research issue? *Consider:* *- if the setting for data collection was justified* *- if it is clear how data were collected (e.g. focus group, semi-structured interview etc)* *- if the researcher has justified the methods chosen* *- if the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, did they used a topic guide?)* *- if methods were modified during the study. If so, has the researcher explained how and why?* *- if the form of data is clear (e.g. tape recordings, video material, notes etc)* *- if the researcher has discussed saturation of data*	
	6. Has the relationship between researcher and participants been adequately considered? *Consider whether it is clear:* *- if the researcher critically examined their own role, potential bias and influence during:* *- formulation of research questions* *- data collection, including sample recruitment and choice of location* *- how the researcher responded to events during the study and whether they considered the implications of any changes in the research design*	
	7. Have ethical issues been taken into consideration? *Consider:* *- if there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained* *- if the researcher has discussed issues raised by the study (e. g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)* *- if approval has been sought from the ethics committee*	
	8. Was the data analysis sufficiently rigorous? *Consider:* *- if there is an in-depth description of the analysis process* *- if thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?* *- whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process* *- if sufficient data are presented to support the findings* *- to what extent contradictory data are taken into account* *- whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation*	
	9. Is there a clear statement of findings? *Consider:* *- if the findings are explicit* *- if there is adequate discussion of the evidence both for and against the researcher's arguments* *- if the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst.)* *- if the findings are discussed in relation to the original research questions*	Write comments here
	10. How valuable is the research? *Consider:* *- if the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research-based literature?)* *- if they identify new areas where research is necessary* *- if the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used*	Write comments here

CRITICAL APPRAISAL SKILLS PROGRAMME
making sense of evidence
12 questions to help you make sense of a cohort study

Whiteley et al (2009). Sports Participation and Humeral torsion. Journal of Orthopaedic & Sports Physical Therapy, Abril 2009, Vol 39, No 4.

	A/ Are the results of the study valid?	Yes	Can't tell	No
Screening Questions	1 Did the study address a clearly focused issue? *HINT: A question can be focused in terms of:* *- the population studied* *- the risk factors studied* *- the outcomes considered* *- is it clear whether the study tried to detect a beneficial or harmful effect?*			
	2 Did the authors use an appropriate method to answer their question? *HINT: Consider* *- Is a cohort study a good way of answering the question under the circumstances?* *-Did it address the study question?*			
Is it worth continuing?				
Detailed Questions	3 Was the cohort recruited in an acceptable way? *HINT: We are looking for selection bias which might compromise the generalisability of the findings:* *- Was the cohort representative of a defined population?* *- Was there something special about the cohort?* *- Was everybody included who should have been included?*			
	4. Was the exposure accurately measured to minimize bias? *HINT: We are looking for measurement or classification bias:* *- Did they use subjective or objective measurements?* *- Do the measures truly reflect what you want them to (have they been validated)?* *- Were all the subjects classified into exposure groups using the same procedure?*			
	5. Was the outcome accurately measured to minimize bias? *HINT: We are looking for measurement or classification bias:* *- Did they use subjective or objective measurements?* *- Do the measures truly reflect what you want them to (have they been validated)?* *- Has a reliable system been established for detecting all the cases (for measuring disease occurrence)?* *- Were the measurement methods similar in the different groups?* *- Were the subjects and/or the outcome assessor blinded to exposure (does this matter)?*			
	6. A. Have the authors identified all important confounding factors? List the ones you think might be important, that the authors missed. *HINT:* *- Look for restriction in design, and techniques eg modelling, stratified-, regression-, or sensitivity analysis to correct, control or adjust for confounding factors*			

6. B. Have they taken account of the confounding factors in the design and/or analysis?
HINT:
- Look for restriction in design, and techniques eg modelling, stratified-, regression-, or sensitivity analysis to correct, control or adjust for confounding factors

7. A. Was the follow up of subjects complete enough?
HINT:
- The good or bad effects should have had long enough to reveal themselves -The persons that are lost to follow-up may have different outcomes than those available for assessment
- In an open or dynamic cohort, was there anything special about the outcome of the people leaving, or the exposure of the people entering the cohort?

7. B. Was the follow up of subjects long enough?
HINT:
- The good or bad effects should have had long enough to reveal themselves
-The persons that are lost to follow-up may have different outcomes than those available for assessment
- In an open or dynamic cohort, was there anything special about the outcome of the people leaving, or the exposure of the people entering the cohort?

B/ What are the results?

8. What are the results of this study?
HINT:
- What are the bottom line results?
- Have they reported the rate or the proportion between the exposed/unexposed, the ratio/the rate difference?
- How strong is the association between exposure and outcome (RR,)?
- What is the absolute risk reduction (ARR)?

9. How precise are the results? How precise is the estimate of the risk?
HINT:
- Size of the confidence intervals

10. Do you believe the results?
HINT:
- Big effect is hard to ignore!
- Can it be due to bias, chance or confounding?
- Are the design and methods of this study sufficiently flawed to make the results unreliable?
- Consider Bradford Hills criteria (eg time sequence, dose-response gradient, biological plausibility, consistency).

C/ Will the results help me locally

11. Can the results be applied to the local population?
HINT: *Consider whether*
- The subjects covered in the study could be sufficiently different from your population to cause concern.
- Your local setting is likely to differ much from that of the study
- Can you quantify the local benefits and harms

12. Do the results of this study fit with other available evidence?

Critical Appraisal Skills Programme (CASP)

making sense of evidence

11 questions to help you make sense of a case control study

How to use this appraisal tool

Three broad issues need to be considered when appraising a case control study:

→ **Are the results of the study valid?**

→ **What are the results?**

→ **Will the results help locally?**

The 11 questions on the following pages are designed to help you think about these issues systematically.

The first two questions are screening questions and can be answered quickly. If the answer to both is "yes", it is worth proceeding with the remaining questions.

There is a fair degree of overlap between several of the questions.

You are asked to record a "yes", "no" or "can't tell" to most of the questions.

A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

A/ Are the results of the study valid?		Yes	Can't tell	No
Screening Questions	1. Did the study address a clearly focused Issue? *A question can be focused in terms of:* *– the population studied* *– the risk factors studied* *– whether the study tried to detect a beneficial or harmful effect?*			
	2. Did the authors use an appropriate Method to answer their question? *Consider:* *– is a case control study an appropriate way of answering the question under the circumstances? (is the outcome rare or harmful?)* *– did it address the study question?*			
Is it worth continuing?				
Detailed Questions	3. Were the cases recruited in an acceptable way? *HINT: We are looking for selection bias which might compromise the validity of the findings:* *– Are the cases defined precisely?* *– Were the cases representative of a defined population (geographically and/or temporally)?* *– Was there an established reliable system for selecting all the cases?* *– Are they incident or prevalent?* *– Is there something special about the cases?* *– Is the time frame of the study relevant to the disease/exposure?* *– Was there a sufficient number of cases selected?* *– Was there a power calculation?*			

4. Were the controls selected in an acceptable way?
HINT: We are looking for selection bias which might compromise the generalisability of the findings:
– Were the controls representative of a defined population (geographically and/or temporally)?
– Was there something special about the controls?
– Was the non-response high? Could non- respondents be different in any way?
– Are they matched, population based or randomly selected?
– Was there a sufficient number of controls selected?

5. Was the exposure accurately measured to minimise bias?
HINT: We are looking for measurement, recall or classification bias:
– Was the exposure clearly defined and accurately measured?
– Did the authors use subjective or objective measurements?
– Do the measures truly reflect what they are supposed to measure? (have they been validated?)
– Were the measurement methods similar in cases and controls?
– Did the study incorporate blinding where feasible?
– Is the temporal relation correct? (does the exposure of interest precede the outcome?)

6. A. What confounding factors have the authors accounted for?
List the other ones you think might be important, that the authors missed *(genetic, environmental and socio-economic).*

6. B. Have the authors taken account of the potential confounding factors in the design and/or in their analysis?
HINT: Look for restriction in design, and techniques, e.g. modeling, stratified-, regression-, or sensitivity analysis to correct, control or adjust for confounding factors.

B/ What are the results?

7. What are the results of this study?
Consider:
– What are the bottom line results?
– Is the analysis appropriate to the design?
– How strong is the association between exposure and outcome (look at the odds ratio)?
– Are the results adjusted for confounding and might confounding still explain the association?
– Has adjustment made a big difference to The OR ??

8. How precise are the results? How precise is the estimate of risk?
Consider:
– Size of the P-value
– Size of the confidence intervals
– Have the authors considered all the important variables?
– How was the effect of subjects refusing to participate evaluated?

9. Do you believe the results?
Consider:
– Big effect is hard to ignore!
– Can it be due to chance, bias or confounding?
– Are the design and methods of this study sufficiently flawed to make the results unreliable?
– Consider Bradford Hills criteria (e.g. time sequence, dose-response gradient, strength, biological plausibility)

Is it worth continuing?

C/ Will the results help me locally?

10. Can the results be applied to the local population? *Consider whether:* *– The subjects covered in the study could be sufficiently different from your population to cause concern.* *– Your local setting is likely to differ much from that of the study.* *– Can you estimate the local benefits and harms?*	
11. Do the results of this study fit with other available evidence? *HINT: Consider all the available evidence from RCTs, systematic reviews, cohort studies and case-control studies as well for consistency.*	

Anexo 2

Autor/ CAPS SCALE	1	2	3	4	5	6	7	8	9	10	11	12	Total
(Monteiro et al., 2011)	Sim	Sim	Não	Sim	Sim	Não	Sim	Sim	Sim	Sim			8/10
(Mottaghi, Razavi, Pozveh e Jahangirmoghaddam, 2011)	Sim	Sim	Sim	Sim	Sim	Sim	Não	Não	Sim	Sim			810
(Akhter et al., 2011)	Sim	Sim	Sim	Não	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	11/12
(Giannakopoulos et al., 2010)	Sim	Sim	Não	Não	Não	Sim	Sim	Sim	Sim	Sim	Sim		8/11
(Lajnert et al., 2010)	Sim	Sim	Sim	Não	Sim	Sim	Sim	Sim	Sim	Sim	Sim		10/11
(Celic, Braut e Petricevic, 2011)	Sim	Sim	Sim	Sim	Sim	Sim	Não	Não	Sim	Sim			8/10
(Kuroiwa et al., 2011)	Sim	Sim	Sim	Sim	Sim	Sim	Não	Não	Sim	Sim			8/10
(Saheeb e Otakpor, 2005)	Sim	Sim	Sim	Não	Sim	Sim	Sim	Sim	Sim	Sim	Sim		10/11
(Vedolin, Lobato, Conti e Lauris, 2009)	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim		11/11
(Akhter et al., 2007)	Sim	Sim	Não	Sim	Não	Sim	Sim	Sim	Sim	Sim	Sim		9/11
(Yap, Chua, Tan e Chan, 2004)	Sim	Sim	Não	Não	Sim	Sim	Sim	Sim	Sim	Sim	Sim		9/11
(McMillan, Wong, Lee e Yeung, 2009)	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Não			9/10
(Matheus et al., 2009)	Sim	Sim	Não	Sim	Não	Sim	Sim	Sim	Sim	Sim	Sim		9/11
(Weber et al., 2012)	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim		11/11
(Rakesh, Devi, Patil e Nagi, 2014)	Sim	Sim	Não	Não	Não	Não	Não	Sim	Sim	Não	Sim		5/11
(La Touche et al., 2011)	Sim	Sim	Sim	Não	Sim	Sim	Sim	Sim	Sim	Não	Sim		9/11
(Munhoz, Marques e Siqueira, 2004)	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim		11/11
(Gadotti, Berzin e Biasotto-Gonzalez, 2005)	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim		10/11
(Ries e Berzin, 2008)	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim	Sim		11/11
(Olivo et al., 2010)	Sim	Sim	Sim	Não	Sim	Sim	Sim	Sim	Sim	Sim	Sim		10/11