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1 **Editorial: Registered Reports at "Quality of Life Research"**

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24 Quality of Life Research is an international and multidisciplinary journal committed to the dissemination
25 of original research, theoretical articles and methodological reports related to the field of quality of life
26 in all the health sciences. This mission requires that the editorial team reviews publishing trends and
27 formats across disciplines, to identify how we can better serve our research community and target
28 audience. "Registered Reports" [1] are a new format developed in one of our contributing fields,
29 psychology. The format is a reaction to the tendency of scientific publishing to focus on manuscripts
30 that present surprising or 'statistically significant' results, which increases the chances of publishing
31 false-positive findings and incentivizes diverging from good scientific principles [2,3]. Registered
32 Reports focus instead on a manuscript's theoretical foundation and adherence to a prospectively planned
33 research process.

34 A Registered Report is a paper written, submitted and accepted before data collection
35 commences. This format enables researchers to focus on the theoretical soundness of the research and
36 the prospective justification of the chosen approach. The review process in turn focuses on the
37 theoretical arguments and contribution of the study as well as the appropriateness of the prospectively
38 declared procedures, methods and analyses. The submission process is consequently structured in two
39 phases. At Stage 1, authors submit manuscripts comprising (i) a fully written background section, which
40 should clearly lead to the research question and planned methods; and (ii) the methods section, which
41 presents the exact proposed procedures, methods and analyses. It also provides a rationale for the chosen
42 methods and criteria for interpreting the results in light of the research question. The reviewers at Stage 1
43 evaluate the soundness of the research question, feasibility of the methodology, and quality and
44 reproducibility of the planned research (e.g., adherence to appropriate reporting guidelines; clarity of
45 procedures; submitted syntax for the analyses). A paper that passes peer-review at this stage will receive
46 an "in-principle acceptance", i.e. the article will be published pending successful study completion.

47 At Stage 2, the authors submit a final version of the manuscript once the data are collected. The
48 registered version remains largely unchanged, but includes the addition of the actual results obtained in
49 the study. The authors provide a discussion which interprets the results in light of the registered
50 background and defined criteria; potentially adding developments in the field since the registration; and
51 other typical parts of a discussion section. A rejection of a registered report at this stage would be

52 unusual. Reasons for rejection would be deviations from the original registered plan; the registered
53 report is altered other than only adding results; or the discussion and interpretation of the main findings
54 does not focus sufficiently on the registered objectives. More details about the process and expectations
55 can be found in the journal's submission guidelines.

56 We are optimistic that Registered Reports fit well with our community standards. First,
57 Registered Reports are relevant in the wider research policy landscape beyond psychology or the social
58 sciences. A substantial proportion of the annual investment in biomedical research is wasted [4],
59 primarily due to the way research is designed, conducted, and analyzed; the way research is regulated
60 and managed; the lack of publication of results; and the poor reporting of research that is published (e.g.,
61 REduce research Waste And Reward Diligence initiative; <http://rewardalliance.net/>; [5]). Registered
62 Reports are one tool to address these challenges. Taking the example of patient reported outcome
63 research, the poor quality of protocols for, and reporting of results from, clinical research have been
64 highlighted in several reviews [6-9]. This contributes to research waste and, importantly, limits the
65 extent to which patient-reported outcome data can inform clinical practice.

66 Second, a key pragmatic advantage of Registered Reports is that the publication of results can
67 be secured in an early phase of the research: Once a Registered Report has been accepted and the project
68 is completed as registered, the results will be published. Third, research published with Quality of Life
69 Research often requires ethics applications, protocols and statistical analysis plans. These are all written
70 prospectively but remain often unpublished. Preparing a Registered Report alongside these standard
71 processes uses this investment more productively and potentially helps focus critical thinking with
72 regards to the study design and 'frontload' activity into the preparatory phase of the research when it is
73 essential. For smaller projects which do not have the capacity to produce published protocols or other
74 evidence of prospective planning, a Registered Report fulfils all these functions and additionally secures
75 the publication.

76 Fourth, while (health-related) quality of life is a key dimension for the evaluation of health care
77 and interventions, and patient-reported outcomes are a key representation of the patient perspective,
78 their inclusion and reporting in trials, cohort studies and other research remains limited [10,8,11]. While
79 a lot of effort is put into planning studies for their respective primary outcomes (sample size, prospective

80 registration, publication of detailed analysis plans), less effort is dedicated to secondary outcomes. But
81 these are often the outcomes most interesting to our readership and community. Providing a secure route
82 to publication of such results will be attractive to researchers working on such outcomes.

83 Finally, Registered Reports focus on planning and conducting high quality research, while
84 removing the need to produce "statistically significant" results. While this is of benefit to all, it may be
85 especially beneficial for PhD students and early career researchers: Registered reports are guaranteed
86 publications as long as the research is undertaken as outlined in the registration. Registered reports
87 would count early on towards a researcher's track record before the completion of the research and the
88 traditional publication of the final paper [12].

89 Registered Reports are now increasingly adopted by journals. The Centre for Open Science lists
90 more than 260 participating journals (<https://www.cos.io/rr>; 09/2020); the number of published
91 Registered Reports is sufficient to enable meta-research [13,14]; and while originally focused on
92 quantitative research, efforts to extend the approach to qualitative research are underway [15]. With both
93 Co-Editors in Chief being psychologists by background, it is not surprising that one made Registered
94 Reports a key theme of his editorship (JRB, 2017) and the other "Research Waste in Quality of Life
95 Research" (CR, 2019; see our call for papers for "Reducing research waste in (health-related) quality of
96 life research"). For us both, it is a great pleasure to announce that Quality of Life Research now offers
97 a Registered Reports format. And Quality of Life Research will continue to accept submissions covering
98 a wide range of scientific methodologies.

99 Last but not least, we want to thank the Board of Directors of the International Society for
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104 Reported Outcomes (WAITING FOR APPROVAL OF ACKNOWLEDGEMENTS AT POINT OF
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