



Improving the Canadian Institute for Health Research's (CIHR) grant applications: An analysis of the policies governing the funding process

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Abstract

Objectives: This study seeks to examine the effectiveness of the CIHR policy reforms in obtaining their five objectives: to decrease application workload, to alleviate peer review burden, to improve peer review consistency, to adapt to the needs of scientific community and to reduce program complexity¹.

Methods: Health researchers in various disciplines were recruited and asked qualitative and quantitative questions via an online questionnaire. The data was analyzed using a SWOT approach and an exploratory policy analysis.

Results: Strengths of the reforms include lightened administrative burdens, clarity of application process, communication and the ease of application submission. Weaknesses include delayed announcement timelines, dated information policies and impersonal CCV applications. Opportunities include Threats include perceived bias towards researcher status, a perceived reduction in the objectivity of the peer review process, and low rate of successful applications.

Conclusion: The reforms have successfully attained two objectives: reduced administrative burden and complexity of administering funds, however more revisions and inquiries are needed to obtain all the outlined objectives.

Introduction

In 2014, the CIHR started undergoing rapid policy changes to the institutional framework governing grant applications. The CIHR launched two new funding opportunities, Foundation Grant and Project Grant, in an attempt to decrease application workload, improve peer review burden and consistency, adapt to the evolving needs of scientific community and alleviate program complexity¹.

This study seeks to examine the effectiveness of the policy changes in attaining the aforementioned objectives. The application process and decisional model used by the CIHR for choosing the projects to receive funding will be critically examined, and a set of policy improvements will be provided in order to better obtain the institution's objectives.

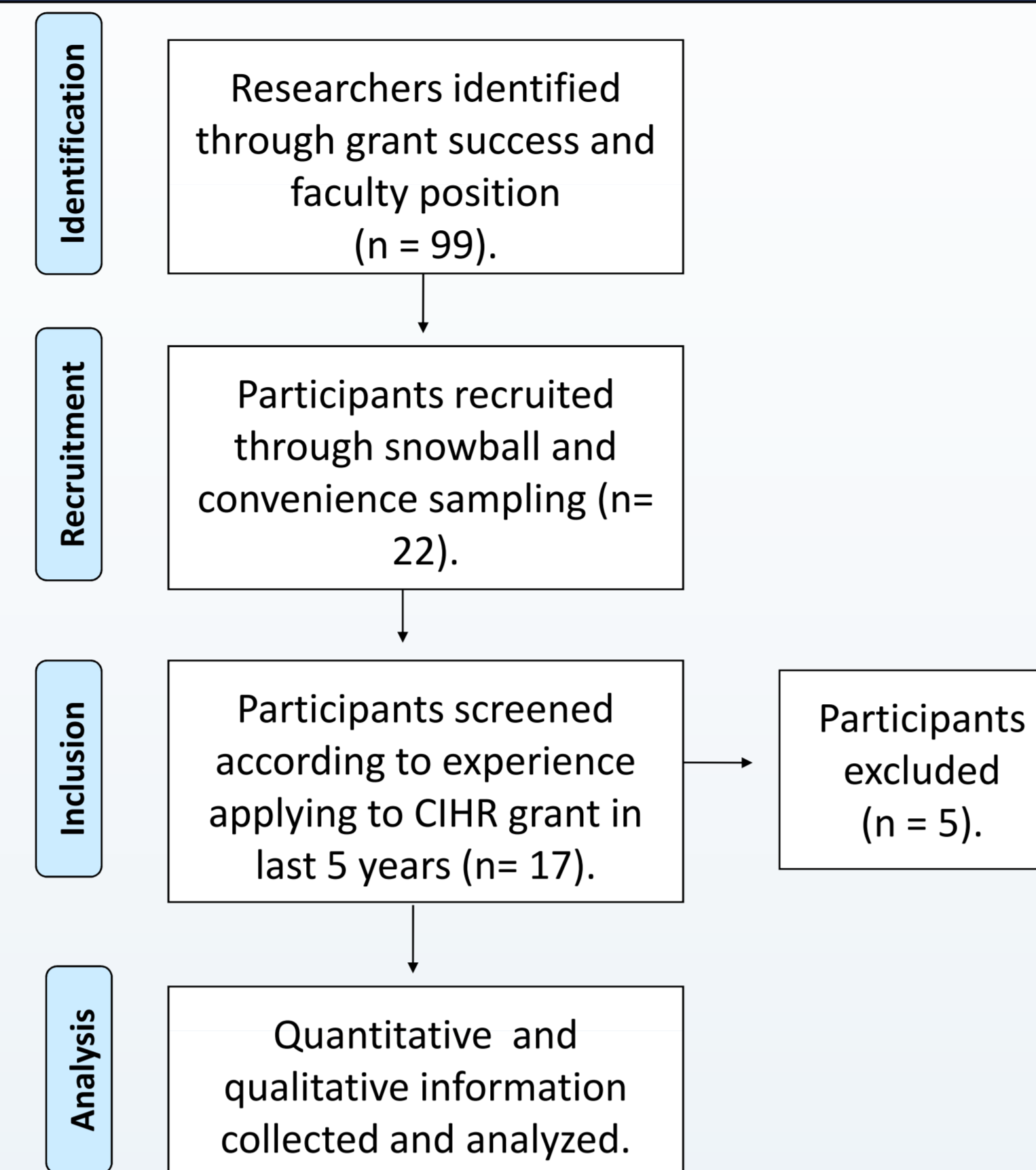
Research Question: According to health researchers, has the CIHR been successful in obtaining the objectives of the institutional reforms?

References

1. "Designing for the Future: The New Open Suite of Programs and Peer Review Process - Town hall presentation". *Canadian Institute for Health Research* (2013). Retrieved from: <http://www.cihr-irsc.gc.ca/e/46371.html>
2. "Opportunity for Early-Career Investigators: Call for Expressions of Interest". *Canadian Institute for Health Research* (2014). Retrieved from: <http://www.cihr-irsc.gc.ca/e/50206.html>
3. "CIHR Reviewer's guide for New Investigator Salary Award". *Canadian Institute for Health Research* (2014). Retrieved from: <http://www.cihr-irsc.gc.ca/e/41208.html>

Table 1 (right). Summary table of the strengths, weaknesses, opportunities and threats facing the CIHR grant application process as perceived by health researchers who had applied for a CIHR grant in the last five years (n=17).

Methodology



An online questionnaire composed of both qualitative and quantitative questions was administered to health researchers in various disciplines. Eligibility criteria included the minimum submission of one grant application to the CIHR in the last five years. Participants were recruited using convenience and snowball sampling. The data was analyzed by identifying the strengths, weaknesses, opportunities and threats of the CIHR grant application and funding process, as perceived by health researchers. An exploratory policy analysis was conducted based on these findings to provide recommendations and areas for policy improvement.

Figure 1. Diagram of study methodology and design.

Results

Description of the respondents: All of the participants had completed a Ph.D, had post-doctoral research experience and were located in Canada (n=22). 60% of participants conducted research through a University or academic institution, while the remaining participants were affiliated with non-university institutions, or hospitals. 82% of participants had applied for a grant from the CIHR in the last five years (n=17).

Characteristics of the study population: 45% of participants were between the ages of 40 and 55, while 32% were between the ages 25 and 40. The remaining 23% of the sample was researchers older than 50 years of age. 35% of the sample was composed of researchers in the beginning stages of their career who had less than 5 years of post-doctoral research experience, while the modality for the remaining participants was 10-15 years of research experience. The most common domain of research was epidemiology (21.3%), followed by researchers in clinical medicine (19.1%), and finally health promotion and socio-behavioural sciences (14.9%).

Strengths

- ✓Ease of submission: use of online CCV portal allows for ease and decreased time consumption in the submission process (n=8).
- ✓Clarity of process: instructions and processes for submitting application forms is simple (n=3).
- ✓Communication of expectations: detailed peer reviews are returned to applicants after rejection or acceptance into a grant program (n=1).
- ✓Lightened administrative burden: less recurrent budget applications and applications for renewing funds (n=1).

Opportunities

- ✓Researcher-specific grants: creation of grants for researchers at beginning-stages of career and in smaller-provinces (n=2).
- ✓New communication methods: provide online and in-person communication methods between CIHR and health researchers to support technical problems and provide clarification for program requirements (n=1).
- ✓Creation of exhaustive sub-categories: recognize and add emerging fields of health research as sub-categories for funding (n=1).

Weaknesses

- ✓Fluctuating timelines: inadequate time from announcement date to application deadline is too short,
- ✓Dated information policies: not all online journals and medical forum are acknowledged as legitimate sources of information (n=1).
- ✓Standardization of the CCV system: standardisation does not allow researchers to highlight strengths of team and portfolio (n=2).
- ✓High competition: large number of applicants and low number of grants causes researchers to seek alternative funds (n=2).

Threats

- ✓Bias towards researcher status: bias towards well-established researchers as opposed to quality of grant applications (n=2).
- ✓Non-expert reviews: applications reviewed by researchers without sufficient knowledge in domain of study (n=2).
- ✓Inconsistency in peer reviews: new online peer review system jeopardizing quality and consistency of peer reviews (n= 3).

Policy Recommendations

1. Increase the amount of time between the project announcement date and the application deadline in order to provide ample time for researchers to assemble and submit high quality applications.
2. Creation of new funding programs and professional development opportunities for researchers in smaller provinces and in early-stages of career. New opportunities are needed beyond simply having identifiers on Project Grant and Foundation Grant applications. Programs such as the Early-investigator pilot (ECI) program² and New Investigator Salary award³ need to be expanded to prevent the "halo effect", whereby early-career investigators are dependent on co-authorship with well-established researchers to receive funds.
3. Update peer-review policy infrastructure to maintain quality assurance of peer-reviews with new online peer-review system.

Discussion

Findings:

- There was no significant relationship between age, gender, number of years of post-doctoral research experience, success with grant applications, domain of research and satisfaction with the grant application process.

Limitations:

- The sample size was too small to have enough power to detect trends and to generalize to the population.
- The use of convenience and snowball sampling may have generated response bias.

Contextualization:

The research study was conducted after the CIHR started a series of reforms in 2014. Many concerns were raised among health professionals regarding the reforms, so the goal in conducting this study is to provide a preliminary analysis of the most pressing concerns amongst health researchers to pinpoint specific areas of future research.

Future Research:

- The most recurrent threat and concern among health researchers was with regards to the peer review process, with 47% of researchers highlighting it as their greatest challenge in applying for a grant from the CIHR. This calls for a more exhaustive qualitative analysis into the bias generated through the process, the quality of the process and the effectiveness of the new online platform in obtaining these objectives.

Conclusion

The reforms have successfully attained two objectives: reduced administrative burden and complexity of administering funds, however more revisions are to reduce bias and conflict of interest in the peer review process, to improve quality of projects selected, to communicate project deadlines and ultimately, to meet the needs of the evolving scientific community.