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Quality requirements can be a barrier to public health

PERSPECTIVES

EIVIND MELAND

eivind.meland@uib.no

Eivind Meland, professor emeritus at the Department of Global Public Health and Primary Care, University of Bergen, and supervisor to specialty registrars in general practice in Bergen.

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Researchers can offer valuable insights despite the systemic bias in research. Examples from studies of families with divorced parents illustrate this.

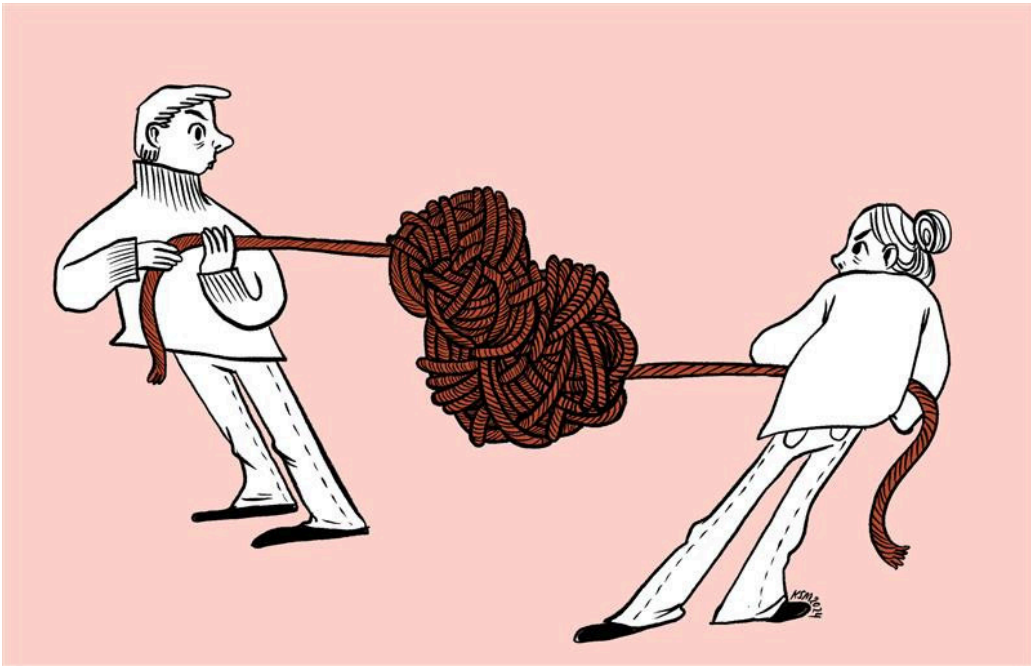

Illustration: Kjersti Synneva Moen

A proposed amendment to the current Children Act has been put out for consultation by the Norwegian Ministry of Children and Families. As part of the effort to change this legislation, we must ask ourselves whether there is sufficient evidence of health loss to justify a legal amendment in which the default arrangement is shared parenting following a divorce. The role of science and public health work in promoting inclusion, recognition and democracy is crucial in a time of increasing polarisation and marginalisation.

A disturbing dichotomy

The Norwegian Institute of Public Health published a review in 2022 that examined the significance of custody and visitation arrangements after divorce (1). The conclusion was that almost all of the studies (23 out of 24) had significant methodological flaws, rendering them inadequate for addressing the question of whether increased mutual contact with both parents was beneficial for children's mental and social health (1).

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Several of the studies were large population studies of the general public, including a longitudinal cohort study with over 30,000 participants (2). The studies almost without exception showed that children had better mental and social health where parenting was shared than children whose contact with one parent was limited. The correlation was weaker when adjusted for potential confounding factors but remained significant.

Public health efforts need to move away from absolutes and binary thinking in order to build trust and credibility. This can be achieved by acknowledging the public health challenges for parents and children following divorce, which has long been a neglected area in research and community medicine. Two recent studies from the Norwegian Institute of Public Health were featured in the media. These studies were based on selected populations from 37 family counselling offices. The researchers generalised their findings to divorced parents as whole, claiming that visitation with both parents had no effect on children (3).

Regardless of one's stance in the important political debate surrounding proposed changes to the Children Act, it is indisputable that the Norwegian Institute of Public Health's dissemination of research plays a major role in shaping political processes in society. More stringent methodological and ethical standards should be applied to how we communicate research findings.

'Normal science'

In the philosophy of science, research that considers itself a value-neutral description of reality and a collective effort in which we uncover ever expanding areas of human existence is often referred to as 'normal science' (4). It is assumed that the scientific perspective is established and free from ethical and political implications.

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This assumption raises questions. Contemporary psychological and medical science is entwined with financial and social conflicts of interest, where it is actively used to influence market and societal conditions in ways that benefit some and disadvantage others. The proposal in the Hurdal Platform from the current government to make shared parenting the default arrangement in child custody law is just one of many examples (5).

It is of course important to establish methodological standards and ensure transparent procedures to identify systemic biases, confounding factors and other sources of confirmation and disconfirmation errors. But the question is, how much emphasis should be placed on this. Society is facing major challenges, such as the marginalisation of growing minorities, the climate crisis and environmental degradation, for which science struggles to offer clear answers due to its entanglement with political conflicts of interest (6). The stakes are high, and the challenges are complex and fraught with systemic uncertainty.

Such challenges are inherently impossible to answer definitively with science alone. Epidemiological observational studies will always contain systematic sources of error. This does not mean that such research is worthless. When there is an expectation that we can provide definitive answers to questions about the relationship between social conditions and health or disease, we risk misleading both ourselves and those commissioning the research. In particular, it is tempting to believe that research can be divided into two categories: methodologically robust research and methodologically unreliable research.

Quality requirements in research

Quality indicators designed to ensure valid answers include criteria to reveal systematic biases in the selection of participants, biases in who receives treatment and the measurement of health outcomes, biases in dropout rates, and other systematic biases. It is relatively easy to limit such biases in clinically controlled trials where the intervention is a medication or a diagnostic

procedure. However, it becomes more complicated in cases such as when the Norwegian Institute of Public Health is tasked with evaluating the effects of post-divorce custody arrangements on children's health, the factors that promote stability in foster care placements, and the effects of measures to combat loneliness and social isolation. Such issues are not well suited to clinically controlled trials, partly because it would be unethical to randomly assign participants to intervention and control groups.

The researchers at the Norwegian Institute of Public Health adhered to research quality standards in their 2022 review (1). They assessed the risk of biases, confounding factors and selective reporting, and made an overall evaluation of the research quality in line with the methodological guidelines for the field (7). In 2024, the newspaper *Bergens Tidende* quoted researchers from the Norwegian Institute of Public Health, but there was no evidence of the same critical perspective here (3) – something that could damage public trust in the Institute and undermine its credibility.

Smoking and thalidomide

Austin Bradford Hill (1897–1991) wrote a groundbreaking article in 1965, which is often used as a framework for identifying potential causal links between risk exposure and disease (8). He outlined nine criteria, including the strength of the association, consistency across different studies, plausibility and findings from experimental data, which are used to assess whether a causal relationship exists.

However, Hill did not believe that meeting these criteria was definitive proof of causation. At a time when researchers and industry were rejecting the knowledge on the health risks of smoking and the dangers of thalidomide, he argued that science can never provide definitive evidence of causal relationships. He also cautioned against dismissing epidemiological research as worthless (9). The reliability of research could not be judged based on the dichotomy of methodologically flawed research and methodologically reliable research.

Hill recommended a cautious approach, where the extent and severity of the damage to health was weighed against the potentially major consequences of risk-reduction measures. Stopping the marketing of thalidomide and informing the public about the health risks of smoking were considered acceptable measures in light of the potential damage to health.

'A recipe for doing nothing'

In an article justifying the methodology and trust in the research behind a WHO report he led, Michael Gideon Marmot (born 1945), a researcher in global health inequities and injustices, argues that the concept of what constitutes

evidence should be broadened to include a diverse range of studies, and that potential causal relationships should be assessed based on plausible and reasoned arguments (10).

If we are to assess potential health damage resulting from lack of contact with a parent after a divorce, we should ask the following questions: Are we dealing with an ethically relevant public health issue? Do we have plausible explanations for how ill health occurs? Can epidemiological observational studies provide evidence to make a tentative causal understanding more plausible? Are the findings consistent? Are the relationships strong enough to suggest causal explanations?

> ***«Marmot argued that failing to expand the focus and to use different sources of knowledge would be a recipe for doing nothing»***

By focusing solely on whether the research is methodologically robust, the opportunity is lost to inform the authorities, policymakers and society at large about what could be considered feasible and acceptable measures to address public health issues. Marmot argued that failing to expand the focus and to use different sources of knowledge would be a recipe for doing nothing (10).

Postnormal science

In the philosophy of science, a paradigm shift known as postnormal science has taken place in the past few decades, which contends that science must exercise caution in its handling of scientific documentation. In a seminal work published in 2004, one of the proponents of this shift points out that scientists have been intertwined with power structures in society for far too long and have acted like medieval clergy (6).

In the face of societal challenges with high stakes and considerable systemic uncertainty, measures should be implemented to democratise decision-making where science has an important voice, but where other sources of knowledge and lay judgement also play a role. Science will never be able to foresee all the downstream consequences of decisions, which is why it is crucial to establish dialogues with other parties on equal terms.

At the nexus of science and politics

Per Fugelli (1943–2017) provoked public health professionals and epidemiologists when he argued that epidemiological findings were being translated into 'authoritarian medicine' (11). He cautioned that a lack of humility in public health efforts risked undermining the population's health through rigid mandates aimed at pursuing the 'zero vision'.

Some might argue that his anti-authoritarian message could be seen as indifference. Postnormal science has also faced criticism, with detractors contending that equating lay knowledge with scientific expertise would give equal authority to any opinion or prejudice, putting it on a par with science (9). Others caution against such an interpretation, arguing that what characterises good science is its competent handling of uncertainty (6). Some stress the need for reflexivity, caution, sincerity, openness and humility. This should not be pushed to the point of parody, where scientists behave as if mute; they should act as individuals with valid opinions, messages and the power to influence (12).

The Danish ethicist and philosopher Knud E. Løgstrup (1905–81) is clear in his warning against indifference and dilettantism as alternatives to authoritarian technocracy (13). He believes that researchers must act in a way that earns trust. He also criticises the drive for uniformity in modern society, emphasising that democracy depends on *differences* and delegated authority.

> ***«Trust must be earned, in part by acknowledging the limitations of science and acting more as mediators than lawyers»***

Other scholars working at the nexus of science and politics argue that science must play a leading role in collaborations between researchers and authorities (14). To achieve this, trust must be earned, in part by acknowledging the limitations of science and acting more as mediators than lawyers.

What the future holds

A majority in the Norwegian Parliament has committed to shared parenting as the norm in the new Children Act, and this has been added to their political programmes. In the consultation paper on the new child custody legislation, the Ministry of Children and Families references the uncertainty expressed by the Norwegian Institute of Public Health (15). We will find out what Parliament decides next year.

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