

## Poor mental health impairs WASH behaviors: Including people with poor mental health in WASH interventions.

**This fact sheet describes how mental health interferes with the performance of WASH behaviors. Evidence shows that people with poor mental health perform WASH behaviors less frequently, that their WASH behavioral factors differ from those of the general population, and that these factors influence behaviors differently. Consequently, the impact of interventions to change WASH behaviors differs in these people. We advocate interventions tailored to these people to avoid excluding them from WASH's benefits.**

Jurgita Slekiene and Hans-Joachim Mosler

### Context

Many development organizations have inclusion of disabled people in their WASH programs (Unicef: WASH disability inclusion practices; World Vision International: WASH: Disability inclusion). So far, the focus has mainly been on physical disability. However, our research indicates that poor mental health can impact WASH behaviors; mental disorders influence the behavior, thoughts, emotions, and interactions of vulnerable individuals and can impair their functioning and ability to cope with daily tasks (WHO, 2018).

Whereas physical disabilities limit access to WASH facilities, poor mental health limits the performance of WASH behaviors. Poor mental health causes lack of motivation, which attenuates daily routine behaviors. Poor mental health may influence WASH behaviors by changing the influence of psychosocial factors on the execution of behavior, and even by changing the effects of behavior change interventions.

The RANAS model of behavior change (Mosler & Contzen, 2016) enables us to understand that mental health a) might result in different values in behavioral factors; b) might moderate the influence of behavioral factors on behavior; and c) might modify the effect of interventions on both behavioral factors and behaviors. This fact sheet summarizes our findings about these impacts of mental health and develops some recommendations about how to deal with it.

### Measuring mental health

Mental health in adult populations was assessed using the self-reporting questionnaire (SRQ-20), which includes twenty Yes/No questions. The Center for Epidemiological Studies Depression Scale for Children (CES-DC) was used to assess depression in child populations. Both questionnaires are reliable and valid screening instruments.

### Prevalence of poor mental health and its linkage to WASH behaviors

We conducted eight studies in three countries with adults and children. In Malawi, the behaviors studied for adults included collection of safe drinking water, safe transport and storage of water, latrine construction, and handwashing at key times. In Guinea-Bissau, the behaviors were the habit of handwashing and not touching a suspected Ebola case. For children in Zimbabwe, the behavior was handwashing, and for children in Malawi, it was latrine use.

On average, about 30% of adults in Malawi suffer of poor mental health, whereas the equivalent figure in Guinea Bissau is only around 14%. However, the prevalence of poor mental health is much higher in children: in Zimbabwe 50% and in Malawi even 70%. With the exception of safe water transportation and storage in Malawi, we found a significant negative linkage between mental health and WASH behaviors and a significantly lower mean performance of these behaviors. This means that all these behaviors are performed less frequently by people with poor mental health.

### Which behavioral factors differ between people with poor mental health and those with good mental health?

Statistically significant differences in our eight studies revealed that people with poor mental health

- perceived themselves to be more vulnerable
- understood less health knowledge
- believed more strongly that WASH behaviors are time consuming
- believed more that these behaviors are hard to perform
- experienced fewer positive emotions while performing handwashing
- were less aware about others' performing the behavior in the household and others' performing the behavior in the village

- thought the opinion of important others was less important
- were less confident about being able to perform the behaviors
- were less committed to collecting water from safe well and to always washing their hands
- paid less attention to collecting safe water, washing their hands, and using latrines
- forgot more often to wash their hands with soap
- communicated less often with others about latrine construction and handwashing.

To summarize, people with poor mental health are more threatened by health risks, have more problems in performing the behavior, and perceive the behavior to be less socially embedded.

### How does mental health moderate the influence of behavioral factors on behavior?

Through studying people collecting safe drinking water in Malawi, we found that people with poor mental health

- are more likely to collect safe drinking water if they think that a lot of others in the village also collect safe drinking water
- are more influenced by their perceived norms
- pay more attention to collecting safe drinking water
- have to take care to remember the behavior
- but are highly committed collecting less safe drinking water.

For safe drinking water transportation and storage of people in Malawi, we found that people with poor mental health react in a contradictory way compared to those with good mental health.

- When perceiving stronger negative consequences of contracting diarrhea, people with poor mental health collect safe drinking water less often.
- When thinking that safe water transportation requires a lot of effort, they collect safe water more often.
- When thinking that others approve of safe transportation, they perform the behavior less frequently.

It seems that any pressure felt by people with poor mental health provokes a backlash.

### How does mental health alter the impact of an intervention on behavioral factors and on behaviors?

Through studying handwashing by people with poor mental health in Malawi, we found that their perceived expensiveness of soap and their perceived difficulty in getting soap for handwashing decreased less than for people with good mental health. In addition, the intervention raised more positive feelings in people with good mental health than in people with poor mental health; consequently, handwashing increased more in people with good mental health. This means that the intervention was not as effective in people with poor mental health as in people with good mental health, so handwashing with soap could not be improved as much.



Household in rural Malawi

### Conclusions

Our findings show that poor mental health reduces the performance of WASH behaviors, affects WASH behavioral factors, moderates the effect of behavioral factors on WASH behaviors, and influences the impact of an intervention on WASH behaviors. To sum up, people with poor mental health should be treated cautiously; no pressure should be exerted on them. Additionally, interventions tackling mental health should be carried out before or in parallel to WASH behavior change interventions. Including people with poor mental health in WASH behavior change programs requires interventions tailored to this group and large-scale interventions to mitigate poor mental health.

**Projects duration:** 2013 – 2018

**Further information:** <http://www.eawag.ch/en/department/ess/main-focus/environmental-and-health-psychology-ehpsy>

**Publications:**

Mosler, H.-J., & Contzen, N. (2016). Systematic behavior change in water, sanitation and hygiene. *A practical guide using the RANAS approach. Version 1.1.* Switzerland: Dübendorf, Switzerland: Eawag.

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**Contact:** Hans-Joachim Mosler: [mosler@eawag.ch](mailto:mosler@eawag.ch); Jurgita Slekiene: [jurgita.slekiene@eawag.ch](mailto:jurgita.slekiene@eawag.ch)

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