Monitoring and Outcome Evaluation in different Dietetic Care settings

Suggestions for a standard model

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Background
- Dietetic interventions contribute to health objectives and other outcomes
- Systematic monitoring and outcome evaluation (M&OE) could provide routine data to prove the effectiveness of dietetic interventions, but is not very well established yet in all dietetic settings.

Methodology
- A comprehensive framework for M&OE in dietetics was developed by dietetic experts from five European higher education institutes in the course of the EU sponsored project "Improvement of Education and Competences in Dietetics (IMPECD)."

Monitoring
"Systematically conducting ongoing checks whether preselected indicators are changing within acceptable limits during an intervention. The aim is to check the intervention implementation and client adherence, as well to track progress towards the a priori determined goals and outcomes, and feedback on it."

Outcome evaluation
"Systematic assessment of indicators to check whether a priori determined goals and objectives, defined as SMART outcomes, have been achieved within the set timeframe (yes/no). The aim is to decide whether the intervention was successful or not. While some outcomes can be evaluated during the actual timeframe of the intervention, the main outcome[s] are always evaluated at the end of the intervention period."

Impact
"Evaluation of outcomes on a macro-level of time (e.g. sustainability, long term effect), organizational level (surpassing the client’s perspective e.g. for a certain professional field or society in general) and resources (e.g. financial impact by cost-effectiveness analysis)."

Results
- Clear definitions on M&OE to facilitate the use of consistent terminology in all dietetic settings (Table 1).
- A visualized model to demonstrate M&OE in relation to intervention planning and implementation (Figure 1).
- A categorized overview of indicators to support M&OE.
- A checklist to guide dietitians in M&OE (Table 2).

Setting intervention goals in term of desired outcomes
1. Intervention goals/outcomes are prioritized
2. Intervention goals/outcomes are set in agreement with the client
3. Intervention goals/outcomes have been defined in a SMART way (target values)

Selecting monitoring and outcome indicators
4. Appropriate modifiable indicators and their reference standards for comparison are selected
5. Appropriate and/or valid instruments to measure indicators are selected and available

Data collection: Measuring and assessment
6. Baseline values of indicators are determined/measured
7. Frequency and timing of measurements are determined
8. Data that can’t be obtained internally are accessible externally
9. Measurements are preferentially done in a valid and reproducible way
10. Time and resources are foreseen to collect, register and analyse data

Interpretation of data: M&OE reasoning
11. Deviations from target/reference values can be interpreted and counteracted (monitoring)
12. Decision on discharge, long-term follow-up, re-assessment or continuation (outcome evaluation)
13. The effectiveness of the intervention (including generalizability of effects) can be assessed
14. The sustainability and impact at a level beyond the client can be assessed
15. Non-completion of intervention, non-participation or drop-out can be analysed
16. Professional improvement by personal reflection is performed

Reporting
17. Professional improvement by sharing experiences with colleagues/peers
18. All data and results are documented in written form
19. All stakeholders are identified and informed

Table 1: Proposed IMPECD definition on monitoring, outcome evaluation and impact

<table>
<thead>
<tr>
<th>Situation</th>
<th>Preparation</th>
<th>Implementation</th>
<th>Outcome Evaluation</th>
<th>Impact</th>
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<td>1</td>
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<td>5</td>
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<tr>
<td>Genetic assessment</td>
<td>Collection of adequate and relevant information at the client</td>
<td>Genetic diagnosis</td>
<td>Effectiveness of the intervention</td>
<td>Costs-effectiveness</td>
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<td>Early and frequent monitoring (baseline)</td>
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Figure 1: The comprehensive IMPECD logic model for dietetics. Blue boxes represent the steps in a logic model, green boxes the steps in a ‘Dietetic Care Process (DCP),’ red boxes the steps of ‘monitoring and outcome evaluation (M&OE).’

Table 2: The IMPECD checklist for monitoring and outcome evaluation (M&OE)


Figure 2: The comprehensive IMPECD logic model for dietetics. Blue boxes represent the steps in a logic model, green boxes the steps in a ‘Dietetic Care Process (DCP),’ red boxes the steps of ‘monitoring and outcome evaluation (M&OE).’