**Supplementary File 2.** Characteristics of individual included frameworks.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Framework Name** | **Number of steps** | **Figure available** | **Explicit guidance for each step available** | **Framework format** | **Endpoint specified** | **Optimisation focus** | **Modified from other frameworks** |
| Abdelmotleb et al., 20081 | The proposed TQM framework for Libyan healthcare sector | 8 | Yes | Yes | Linear and cyclic |  | Both intervention and implementation | Yes |
| Antony et al., 20022 | Design for Six Sigma (DFSS) | 4 | Yes | Yes | Linear and cyclic | Yes | Implementation |  |
| Bastian et al., 20163 | Mixed-Methods Research Framework | 4 | Yes | Yes | Linear | Yes | Implementation | Yes |
| Collins et al., 20054 | Multiphase optimization strategy (MOST) for fixed treatments | 9 |  | Yes | Linear | Yes | Intervention |  |
| Collins et al., 20145 | The multiphase optimization strategy (MOST) for dynamic treatment regimes | 3 |  | Yes | Cyclic |  | Intervention |  |
| Craig et al., 20086 | Medical Research Council (MRC) 2008 | 4 | Yes | Yes | Cyclic |  | Intervention | Yes |
| Czajkowski et al., 20157 | ORBIT Model (Obesity-Related Behavioral Intervention Trials) | 5 | Yes | Yes | Linear and cyclic | Yes | Intervention |  |
| Greene et al., 20128 | Rapid learning health care system | 6 | Yes | Yes | Cyclic |  | Implementation |  |
| Haji et al., 20149 | Modified MRC's framework | 8 | Yes | Yes | Cyclic |  | Intervention | Yes |
| Institute for Healthcare Improvement et al., 200310 | Model for Improvement | 7 | Yes |  | Linear and cyclic | Yes | Implementation |  |
| ISIXSIGMA et al., 201911 | Six sigma DMAIC (Define, Measure, Analyze, Improve, Control) | 5 |  | Yes | Linear and cyclic | Yes | Implementation |  |
| McGonigal et al., 201712 | 4C model | 4 | Yes | Yes | Cyclic |  | Implementation | Yes |
| McKay et al., 201213 | Utilisation of Routine Outcome Measurement | 5 | Yes | Yes | Cyclic |  | Implementation |  |
| Medical Research Council et al., 200014 | Medical Research Council's (MRCs) framework | 5 | Yes | Yes | Linear and cyclic |  | Intervention |  |
| Mosser et al., 199615 | ICSI process specification for the prevention or treatment of a given diagnosis guideline | 9 | Yes | Yes | Linear |  | Implementation |  |
| Murray et al., 201016 | Normalisation Process Theory | 5 |  | Yes | Linear and cyclic |  | Intervention |  |
| Pronovost et al., 200817 | Johns Hopkins Quality and Safety Research Group translating evidence into practice model | 9 | Yes | Yes | Linear and cyclic |  | Implementation |  |
| Redick et al., 199918 | FOCUS-PDCA | 9 |  | Yes | Linear |  | Implementation |  |
| Sutton et al., 201619 | Developed their own framework based on Eight steps, Constructive feedback (DEARMAN), PDSA | 4 | Yes | Yes | Cyclic |  | Implementation | Yes |
| Zhou et al., 201920 | EPIDEM | 6 |  | Yes | Cyclic |  | Intervention |  |

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