

Supplemental Material S5. Consideration of the candidate intervention functions using the APEASE criteria.

| Candidate intervention function | Definition | COM-B component | Meet the APEASE criteria? |
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| Education | Increasing knowledge or understanding (e.g., <i>providing information to promote an adaptive response to tinnitus</i>) | <p><i>Psychological capability</i></p> <ul style="list-style-type: none"> Educate about ways of enacting the desired behavior/ avoiding undesired behaviors via educational modules and videos. <p><i>Reflective motivation</i></p> <ul style="list-style-type: none"> Educate to create more positive beliefs about the desired behavior. | Yes |
| Persuasion | Using communication to induce positive or negative feelings or stimulate action (e.g., <i>using imagery to motivate adaptive responses to tinnitus</i>) | <p><i>Reflective motivation</i></p> <ul style="list-style-type: none"> Persuade to create more positive beliefs about the desired behavior. Persuade to feel more positively about the desired behavior. | Yes |
| Incentivization | Creating an expectation of reward (e.g., <i>highlight the benefits of engaging in an adaptive response to tinnitus</i>) | <p><i>Reflective motivation</i></p> <ul style="list-style-type: none"> Incentivize to feel more positively about the desired behavior. Goal setting with the view of improving quality of life and engaging and participating in activities. | Yes |
| Coercion | Creating an expectation of punishment or cost (e.g., <i>highlighting how no action will not improve tinnitus</i>) | <p><i>Reflective motivation</i></p> <ul style="list-style-type: none"> Coerce to feel more positively about the desired behavior. | Yes |
| Training | Imparting skills (e.g., <i>training to facilitate an adaptive response to tinnitus</i>) | <p><i>Physical capability</i></p> <ul style="list-style-type: none"> Train physical skills required for the desired behavior through step-by-step instructions and demonstration videos. <p><i>Psychological capability</i></p> <ul style="list-style-type: none"> Train cognitive skills required for the desired behavior. Train development of mental strength required for desired behavior. Train sustained resistance to undesired behavior(s). <p><i>Physical opportunity</i></p> <ul style="list-style-type: none"> Train to reduce competing time demands. Train to provide cues/ prompts for desired behavior. | Yes |

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| | | <i>Automatic motivation</i> <ul style="list-style-type: none"> Train to strengthen habitual engagement in the desired behavior. | |
| Restriction | Using rules to increase the opportunity to engage in the target behavior/ reduce opportunity to engage in competing behaviors (e.g., <i>Prohibiting a non-adaptive response to tinnitus</i>) | <i>Physical/ Social opportunity</i> <ul style="list-style-type: none"> Restriction to reduce undesired behavior(s) surrounding habits that have a negative impact (e.g., for sleep). | <i>Yes</i> |
| Environmental restructuring | Changing the physical or social context (e.g., <i>providing reminders to encourage an adaptive response to tinnitus</i>) | <i>Physical opportunity</i> <ul style="list-style-type: none"> Restructure the environment to reduce competing time demands. Restructure the environment to provide cues and prompts for desired behavior. Restructure the environment to reduce difficulties regarding concentration, sleep and hearing difficulties. <i>Social opportunity</i> <ul style="list-style-type: none"> Restructure the environment to increase social support. | Yes |
| Modelling | Providing an example for people to aspire to or imitate (e.g., <i>expert videos, using patient testimonials/ dramatizations of how they have adaptively responded to tinnitus</i>) | <i>Social opportunity</i> <ul style="list-style-type: none"> Modelling to shape people’s ways of thinking. <i>Reflective motivation</i> <ul style="list-style-type: none"> Model to feel more positively about the desired behavior. <i>Automatic motivation</i> <ul style="list-style-type: none"> model desired behavior to induce automatic imitation. | Yes |
| Enablement | Increasing means/ reducing barriers to increase capability or opportunity (e.g., <i>behavioral support to adaptively respond to tinnitus</i>) | <i>Psychological capability</i> <ul style="list-style-type: none"> Enable development of mental strength required for desired behavior through the strategies provided. Enable sustained resistance to undesired behavior(s) through the strategies provided. <i>Reflective motivation</i> <ul style="list-style-type: none"> Enable to feel more positively about the desired behavior. <i>Automatic motivation</i> <ul style="list-style-type: none"> Enable to strengthen habitual engagement in desired behavior. | Yes |