

## Studies evaluating efficacy of technology-based psychological treatments for anorexia and bulimia nervosa <sup>a</sup>

[illegible]

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| Huon [45]<br>Australia                               | BN<br>(N=120)<br>(DSM-III)                  | 120                                                                                  | Community                                        | <b>RCT</b><br>Baseline,<br>7 months (post),<br>3-month follow-up,<br>6-month follow-up             | <b>Internet-guided self-help</b><br>7 modules<br>7 months                                                            | <u>Group 1-3:</u><br><u>Mailed program</u><br>(in each case<br>N=30)<br><u>Control group</u><br>(N=30)                                                  | <u>Group 1</u><br>Contact to<br>cured<br>person<br><u>Group 2</u><br>Contact to<br>improved<br>person<br><u>Group 3 &amp;<br/>Control<br/>group</u><br>No contact | Group 1/Group2<br>> Group3 ><br>Control group |                                                                                                     | 3,5,7   |
| Graham &<br>Walton [46]<br><br>United<br>Kingdom     | BN<br>(N=13)<br>BED<br>(N=27)<br>(DSM-IV)   | 77/66<br>(85.7%)                                                                     | Consecutive<br>referrals to<br>the ED<br>service | <b>Uncontrolled study</b><br>Baseline,<br>session 8 (post),<br>1-year follow-up<br>(not published) | <b>“Overcoming Bulimia”</b><br>8 modules<br>8 weeks                                                                  |                                                                                                                                                         | Three<br>scheduled<br>contacts<br>with a<br>clinician                                                                                                             | Improved                                      | 40/77<br>(51.9%)                                                                                    | 1,3,4,6 |
| Murray<br>et al [47]<br><br>United<br>Kingdom        | BN<br>(N=77)<br>EDNOS<br>(N=5)<br>(DSM-IV)  | 103/82<br>(79.6%)<br><u>MG</u><br>53/43<br>(81.1%)<br><u>TG</u><br>50/39<br>(78.0%)  | Consecutive<br>referrals to<br>the ED unit       | <b>Controlled study</b><br>Baseline,<br>session 3 (post),<br>6-8-week<br>follow-up                 | <b>“Overcoming Bulimia”</b><br>8 modules<br>8-12 weeks                                                               | <u>Minimal<br/>guidance group</u><br>(MG)<br>(N=53)<br><u>Therapist<br/>guidance group</u><br>(TG)<br>(N=50)                                            | <u>MG</u><br>Low-key<br>interaction<br>with a<br>researcher<br><u>TG</u><br>Three 20-<br>min<br>sessions of<br>therapist<br>guidance                              | MG = TG                                       | <u>MG</u><br>20/53<br>(37.7%)<br><u>TG</u><br>17/50<br>(34.0%)                                      | 3,4,6,7 |
| Sánchez-Ortiz<br>et al [48]<br><br>United<br>Kingdom | BN<br>(N=39)<br>EDNOS<br>(N=37)<br>(DSM-IV) | 76/55<br>(72.4%)<br><u>iCBT</u><br>38/30<br>(78.9%)<br><u>WL</u><br>38/25<br>(65.8%) | University,<br>email                             | <b>RCT</b><br>Baseline,<br>3 months (post),<br>3-month follow-up                                   | <b>“Overcoming Bulimia”</b><br>8 modules<br>8-12 weeks<br>continued access to<br>the online-sessions<br>for 24 weeks | <u>Internet-based<br/>cognitive<br/>behavioral<br/>therapy (iCBT)</u><br>(N=38)<br><u>Waiting<br/>list/Delayed<br/>treatment control<br/>group (WL)</u> | <u>iCBT</u><br>Email<br>support<br>once every<br>1-2 weeks                                                                                                        | iCBT > WL                                     | Mean<br>number of<br>sessions<br><u>iCBT</u><br>5.5<br>(S.D.=2.5)<br><u>WL</u><br>5.3<br>(S.D.=2.5) | 6,7,8   |

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|                                                   |                                             |                                                                             |                                                                            |                                                                                                                         |                                                               | (N=38)                                                                                      |                                                                  |                            |                                                     |               |
| Ljotsson<br>et al [49]<br><br>Sweden              | BN<br>(N=33)<br>BED<br>(N=36)<br>(DSM-IV)   | 73/69<br>(94.5%)<br><u>Inter-<br/>vention<br/>group</u><br>37/35<br>(94.6%) | Community,<br>homepage of<br>anorexia/bu-<br>limia patients<br>association | <b>RCT</b><br>Baseline,<br>weekly reports,<br>6 weeks (mid-<br>treatment),<br>3 months (post),<br>6-month follow-<br>up | <b>“Overcoming<br/>Binge eating”</b><br>6 modules<br>12 weeks | <u>Intervention<br/>group</u><br>(N=37)<br><u>Waiting list<br/>(WL)</u><br>(N=36)           | Email-<br>contact with<br>a therapist<br>at least once<br>a week | Intervention<br>group > WL | <u>Interven-<br/>tion group</u><br>24/37<br>(64.9%) | 3,7,8         |
| Carrard<br>et al [50]<br><br>Switzerland          | BN<br>(N=41)<br>EDNOS<br>(N=4)<br>(DSM-IV)  | 45                                                                          | Community,<br>referrals from<br>local health<br>care<br>professionals      | <b>Uncontrolled<br/>study</b><br>Baseline,<br>4 months (post),<br>2-month follow-<br>up                                 | <b>“SALUT”</b><br>7 modules<br>4 months                       |                                                                                             | Weekly<br>email<br>contact<br>with a<br>therapist                | Improved                   | 29/45<br>(64.4%)                                    | 1,3,5,6,7,9   |
| Liwowsky<br>et al [51]<br><br>Germany             | BN<br>(N=22)<br>(DSM-IV)                    | 22                                                                          | Internet,<br>newspaper,<br>public<br>bulletins                             | <b>Uncontrolled<br/>study</b><br>Baseline,<br>4 months (post),<br>2-month follow-<br>up                                 | <b>“SALUT”</b><br>7 modules<br>4 months                       |                                                                                             | Weekly<br>email<br>contact with<br>a psycholo-<br>gist           | Improved                   | 21/22<br>(95.5%)                                    | 1,4,5,6,7,9   |
| Nevonen<br>et al [52]<br><br>Sweden               | BN<br>(N=27)<br>EDNOS<br>(N=11)<br>(DSM-IV) | 38                                                                          | Patients from<br>waiting list at<br>the AN and<br>BN unit                  | <b>Uncontrolled<br/>study</b><br>Baseline,<br>6 months (post),<br>2-month follow-<br>up                                 | <b>“SALUT”</b><br>7 modules<br>6 months                       |                                                                                             | Weekly<br>email<br>contact with<br>a coach                       | Improved                   | 7/38<br>(18.4%)                                     | 1,9           |
| Fernández-<br>Aranda<br>et al [53]<br><br>Spain   | BN<br>(N=62)<br>(DSM-IV)                    | 62                                                                          | Referrals at<br>the<br>Department<br>of Psychiatry                         | <b>Controlled<br/>study</b><br>Baseline,<br>4 months (post)                                                             | <b>“SALUT”</b><br>7 modules<br>4 months                       | <u>Internet-based<br/>therapy (IBT)</u><br>(N=31)<br><u>Waiting list<br/>(WL)</u><br>(N=31) | Weekly<br>email<br>contact with<br>a coach                       | IBT > WL                   |                                                     | 2,3,4,5,6,7,8 |
| Carrard<br>et al [54]<br><br>Switzerland<br>Spain | BN<br>(N=100)<br>EDNOS<br>(N=27)<br>(DSM-   | 127                                                                         | Internet,<br>newspaper<br>articles, ad-<br>vertisements,<br>study center   | <b>Uncontrolled<br/>study</b><br>Baseline,<br>4 months (post),<br>2-month follow-                                       | <b>“SALUT”</b><br>7 modules<br>4 months                       |                                                                                             | Weekly<br>email<br>contact with<br>a coach                       | Improved                   | 40/127<br>(31.5%)                                   | 1,3,5,6       |

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| Sweden<br>Germany                                | IV)                                             |                                                                                                          | waiting list,<br>referrals to<br>the study<br>center                                                            | up                                                                                                                  |                                                                                          |                                                                                                                                                             |                                                                                   |                         |                                                                            |           |
| Wagner<br>et al [55]<br><br>Austria<br>Germany   | BN or<br>EDNOS<br>(N=155)<br>(DSM-<br>IV)       | 155/126<br>(81.3%)<br><u>INT-<br/>GSH</u><br>83/70<br>(84.3%)<br><u>BIB-<br/>GSH</u><br>72/56<br>(77.8%) | Advertise-<br>ments                                                                                             | <b>RCT</b><br>Baseline,<br>4 months,<br>7 months,<br>18 months                                                      | <b>“SALUT”</b><br>7 modules<br>4-7 months                                                | <u>Internet-based<br/>guided self-help<br/>(INT-GSH)</u><br>(N=70)<br><u>Conventional<br/>guided self-help<br/>(BIB-GSH)</u><br>(N=56)                      | Weekly<br>email<br>contact with<br>psycholo-<br>gists or<br>psychothe-<br>rapists | INT-GSH =<br>BIB-GSH    |                                                                            | 5,6,7     |
| Leung<br>et al [56]<br><br>China<br>Australia    | ED<br>(N=280)<br>(SCOFF,<br>EDE-Q5)             | 280/176<br>(62.9%)                                                                                       | Outpatient<br>ED clinics,<br>treatment<br>units,<br>university<br>student<br>newspaper,<br>Internet<br>websites | <b>Uncontrolled<br/>study</b><br>Baseline,<br>1 month,<br>3 months (not<br>reported),<br>6 months (not<br>reported) | <b>“SMART<br/>EATING”</b><br>6 components<br>Open end                                    |                                                                                                                                                             | Monthly<br>email by a<br>therapist                                                | Improved                |                                                                            | 1,3,5,6,7 |
| Pretorius<br>et al [57]<br><br>United<br>Kingdom | BN<br>(N=61)<br>EDNOS<br>(N=40)<br>(DSM-<br>IV) | 101<br>adoles-<br>cents                                                                                  | ED clinics                                                                                                      | <b>Uncontrolled<br/>study</b><br>Baseline,<br>3 months (post),<br>3-month follow-<br>up                             | <b>“Overcoming<br/>Bulimia”</b><br>(adapted for<br>adolescents)<br>8 modules<br>3 months |                                                                                                                                                             | Weekly<br>flexible<br>email<br>support<br>from a<br>clinician                     | Improved                | On<br>average 3<br>out of a<br>possible 8<br>sessions<br>were<br>completed | 1         |
| Wagner<br>et al [58]<br><br>Austria<br>Germany   | BN or<br>EDNOS<br>(N=155)<br>(DSM-<br>IV)       | 155/126<br>(81.3%)<br>29 ado-<br>lescents,<br>97<br>adults                                               | Advertise-<br>ments                                                                                             | <b>RCT</b><br>Baseline,<br>4 months,<br>7 months,<br>18 months                                                      | <b>“SALUT”</b><br>7 modules<br>4-7 months                                                | <u>Internet-based<br/>guided self-help<br/>(INT-GSH)</u><br>(n=52 adults,<br>n=18<br>adolescents)<br><u>Conventional<br/>guided self-help<br/>(BIB-GSH)</u> | Weekly<br>email<br>contact with<br>psycholo-<br>gists or<br>psychothe-<br>rapists | Adults =<br>adolescents |                                                                            | 5,6,7     |

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|                                                     |                                                                  |                                                                                                         |                             |                                                                                                |                                                                                                               | (n=45 adults,<br>n=11<br>adolescents)                                                                                                                   |                                                                      |                     |                                                                         |                     |
| <b>Internet-based Therapist-delivered Treatment</b> |                                                                  |                                                                                                         |                             |                                                                                                |                                                                                                               |                                                                                                                                                         |                                                                      |                     |                                                                         |                     |
| Robinson & Serfaty [59]                             | BN<br>(N=18)<br>BED<br>(N=4)<br>EDNOS<br>(N=1)<br>(BITE<br>>10)  | 23/19<br>(82.6%)                                                                                        | University,<br>email        | <b>Uncontrolled<br/>study</b><br>Baseline,<br>3 months (post)                                  | <b>Email Therapy</b><br>3 months                                                                              |                                                                                                                                                         | Email<br>contact with<br>a therapist<br>twice a<br>week              | Improved            |                                                                         | 1,2,3,5,6,7,<br>9   |
| United Kingdom                                      |                                                                  |                                                                                                         |                             |                                                                                                |                                                                                                               |                                                                                                                                                         |                                                                      |                     |                                                                         |                     |
| Robinson & Serfaty [60]                             | BN<br>(N=51)<br>EDNOS<br>(N=20)<br>BED<br>(N=26)<br>(DSM-<br>IV) | 97                                                                                                      | University,<br>email        | <b>RCT</b><br>Baseline,<br>3 months (post)                                                     | <b>Email Therapy</b><br>3 months                                                                              | <u>Email bulimia<br/>therapy (eBT)</u><br>(N=36)<br><u>Self-directed<br/>writing (SDW)</u><br>(N=34)<br><u>Waiting list<br/>control (WLC)</u><br>(N=27) | Email<br>contact with<br>a therapist<br>twice a<br>week              | eBT = SDW ><br>WLC  |                                                                         | 2,3,5,7             |
| United Kingdom                                      |                                                                  |                                                                                                         |                             |                                                                                                |                                                                                                               |                                                                                                                                                         |                                                                      |                     |                                                                         |                     |
| Simpson et al [61]                                  | BN (N=5)<br>AN (N=1)<br>EDNOS<br>(N=6)<br>(SEDs)                 | 12                                                                                                      | ED service<br>waiting list  | <b>Uncontrolled<br/>study</b><br>Baseline,<br>after therapy<br>(post)                          | <b>Videoconferencing</b><br>12-20 sessions CBT<br>6-8 sessions of<br>nutritional<br>education if<br>necessary |                                                                                                                                                         | CBT<br>therapist                                                     | Improved            |                                                                         | 1,2,3,4,5,6,<br>7,9 |
| United Kingdom                                      |                                                                  |                                                                                                         |                             |                                                                                                |                                                                                                               |                                                                                                                                                         |                                                                      |                     |                                                                         |                     |
| Mitchell et al [62]                                 | BN<br>(N=71)<br>EDNOS<br>(N=57)<br>(DSM-<br>IV)                  | 128/116<br>(90.6%)<br><u>F2F-<br/>CBT</u><br>66/58<br>(87.9%)<br><u>TV-<br/>CBT</u><br>62/58<br>(93.5%) | Mailings,<br>advertisements | <b>RCT</b><br>Baseline,<br>4 months (post),<br>3-month follow-<br>up,<br>12-month<br>follow-up | <b>Videoconferencing</b><br>Manual-based<br>cognitive behavioral<br>therapy (CBT)<br>20 sessions<br>4 months  | <u>Face-to-face<br/>CBT (F2F-CBT)</u><br>(N=66)<br><br><u>Telemedicine<br/>CBT (TV-CBT)</u><br>(N=62)                                                   | CBT (F2F<br>or via<br>telemedi-<br>cine) by<br>trained<br>therapists | F2F-CBT =<br>TV-CBT | <u>F2F-CBT</u><br>40/66<br>(60.6%)<br><u>TV-CBT</u><br>37/62<br>(59.7%) | 4,5                 |
| USA                                                 |                                                                  |                                                                                                         |                             |                                                                                                |                                                                                                               |                                                                                                                                                         |                                                                      |                     |                                                                         |                     |
| <b>Internet-based Relapse Prevention</b>            |                                                                  |                                                                                                         |                             |                                                                                                |                                                                                                               |                                                                                                                                                         |                                                                      |                     |                                                                         |                     |

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| Fichter et al [63, 64]<br>Germany                | AN (N=258) (DSM-IV)                          | 258 | Hospitals                                                                  | <b>RCT</b><br>Baseline, 9 months (post), 9-month follow-up       | <b>“VIA”</b><br>9 modules<br>9 months                                  | <u>Relapse prevention (RP)</u> (N=128)<br><u>Treatment as usual (TAU)</u> (N=130)                                             | Email contact to a therapist                                                            | RP > TAU (completer)             | 51/128 (39.8%)                                                                                    | 6,7,8         |
| Mezei et al [65]<br>Hungary                      | BN or EDNOS (N=39) (DSM-IV)                  | 39  | Inpatient and outpatient treatment centers, online and paper advertisement | <b>Uncontrolled study</b><br>Baseline, 4 months (post)           | <b>“EDINA”</b><br>4 months                                             |                                                                                                                               | Weekly group chat (90 min) with a therapist, voluntary individual chat session (30 min) | Unchanged                        |                                                                                                   | 1,2,3,5,6,8,9 |
| <b>Body Image and Eating Disorder Prevention</b> |                                              |     |                                                                            |                                                                  |                                                                        |                                                                                                                               |                                                                                         |                                  |                                                                                                   |               |
| Gollings & Paxton [66]<br>Australia              | BSQ>81.5 (N=40)                              | 40  | Advertisements on university campus and community notice-boards            | <b>Pilot RCT</b><br>Baseline, 2 months (post), 2-month follow-up | <b>“Set Your Body Free”</b><br>Weekly 90-min group sessions<br>8 weeks | <u>Face-to-face group (F2F)</u> (N=19)<br><u>Internet group</u> (N=21)                                                        | F2F and Internet group sessions led by a therapist                                      | F2F = Internet group             | <u>F2F</u> 15/19 (78.9%)<br><u>Internet group</u> 18/21 (85.7%)                                   | 3,5,6,7,9     |
| Paxton et al [67]<br>Australia                   | BSQ≥100 or BULIT-R>104 and BSQ=90-99 (N=116) | 116 | Advertisements on community notice-boards and referral services            | <b>RCT</b><br>Baseline, 8-9 weeks (post), 6-month follow-up      | <b>“Set Your Body Free”</b><br>Weekly 90-min group sessions<br>8 weeks | <u>Face-to-face group (F2F)</u> (N=42)<br><u>Internet group</u> (N=37)<br><u>Delayed treatment control (DTC) group</u> (N=37) | F2F and Internet group sessions led by a therapist                                      | F2F > Internet group > DTC group | <u>F2F</u> 32/42 (76.2%)<br><u>Internet group</u> 26/37 (70.3%)<br><u>DTC group</u> 30/37 (81.1%) | 3,5,6         |

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| Stice et al [68, 69]<br><br>USA  | Students with body dissatisfaction (N=107)         | 107 | Participants from a local university invited via email messages and posters | <b>RCT</b><br>Baseline, 4-6 weeks (post), 1-year follow-up, 2-year follow-up | <b>“eBody Project”</b><br>6 modules<br>3 weeks<br><b>“Body Project”</b><br>Weekly 1-hour group sessions<br>4 weeks<br><b>Educational video condition</b><br>55-min documentary<br><b>Educational brochure control condition</b><br>2-page brochure | <u>eBody Project</u> (N=19)<br><u>Body Project</u> (N=39)<br><u>Educational video condition</u> (N=29)<br><u>Educational brochure condition</u> (N=20) | <u>eBody Project</u><br>No guidance<br><u>Body Project</u><br>Delivered by pairs of clinicians<br><u>Video/brochure controls</u><br>No guidance | eBody Project = Body Project > Educational video condition = Educational brochure condition | <u>eBody Project</u> 17/19 (89.5%)<br><u>Body Project</u> 31/39 (79.5%) | 4,5       |
| Serdar et al [70]<br><br>USA     | Weight and/or shape concerns (N=333)               | 333 | Participant pool at a public university                                     | <b>RCT</b><br>Baseline, session 3 (post)                                     | <b>Dissonance-based ED prevention (DB)</b><br>3 sessions for 1 hour                                                                                                                                                                                | <u>Face-to-face (F2F) DB</u> (N=107)<br><u>Online DB</u> (N=112)<br><u>Assessment only</u> (N=114)                                                     | F2F DB and Online DB delivered by doctoral-level psychology graduate students                                                                   | F2F DB = Online DB                                                                          |                                                                         | 2,3,4,5   |
| Zabinski et al [71]<br><br>USA   | Weight Concerns Scale $\geq$ 57 (N=60)             | 60  | Public, west coast university                                               | <b>RCT</b><br>Baseline, 8 weeks (post), 10-week follow-up                    | <b>Synchronous Internet relay chat (IRC)</b><br>Weekly 1-hour chat discussions<br>8 weeks                                                                                                                                                          | <u>Internet relay chat (IRC)</u> (N=30)<br><u>Waiting list control (WLC)</u> (N=30)                                                                    | IRC delivered by an advanced graduate student in clinical psychology                                                                            | IRC > WLC                                                                                   |                                                                         | 6,7,8     |
| Ohlmer et al [72]<br><br>Germany | Women at risk for AN (BMI, WCS, Restraint scale of | 36  | Lectures and seminars from different departments of 3 German universities   | <b>Uncontrolled study</b><br>Baseline, 10 weeks (post), 6-month follow-up    | <b>“Student Bodies” for AN (SB-AN)</b><br>Weekly sessions for 45-90 min<br>10 weeks                                                                                                                                                                |                                                                                                                                                        | Individual weekly feedback by the moderator                                                                                                     | Improved                                                                                    |                                                                         | 1,4,5,8,9 |

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|                                                               | EDE-Q<br>(N=36)                                                                               |                                                                                                                                             |                                                                                                                    |                                                                      |                                                                              |                                                                                                                       |                                                                             |                                                                                            |                                                                                                 |         |
| Heinicke<br>et al [73]<br><br>Australia                       | Self-<br>identifi-<br>cation as<br>having<br>body<br>image or<br>eating<br>problems<br>(N=83) | 83/73<br>(88.0%)<br>adoles-<br>cents<br><u>Inter-<br/>vention<br/>group</u><br>40/36<br>(90.0%)<br><u>DTC<br/>group</u><br>43/37<br>(86.0%) | Flyers about<br>the program<br>to school<br>counsellors<br>and<br>principals                                       | <b>RCT</b><br>Baseline,<br>6 weeks (post)                            | <b>“My Body, My<br/>Life”</b><br>Weekly 90-min<br>online sessions<br>6 weeks | <u>Intervention<br/>group</u><br>(N=40)<br><u>Delayed<br/>treatment control<br/>(DTC) group</u><br>(N=43)             | Sessions<br>conducted<br>by a trained<br>therapist                          | Intervention<br>group > DTC<br>group                                                       | <u>Interven-<br/>tion group</u><br>30/40<br>(75.0%)<br><u>DTC<br/>group</u><br>34/43<br>(79.1%) | 3,6,8   |
| <b>Eating Disorder Symptoms/Subthreshold Eating Disorders</b> |                                                                                               |                                                                                                                                             |                                                                                                                    |                                                                      |                                                                              |                                                                                                                       |                                                                             |                                                                                            |                                                                                                 |         |
| Ruwaard<br>et al [74]<br><br>Netherlands                      | Bulimic<br>symp-<br>toms<br>(N=105)<br>(EDE-Q,<br>BAT)                                        | 105                                                                                                                                         | Community                                                                                                          | <b>RCT</b><br>Baseline,<br>20 weeks (post),<br>1-year follow-up      | 20 weeks                                                                     | <u>Online CBT</u><br>(N=35)<br><u>Bibliotherapy<br/>(Biblio.)</u><br>(N=35)<br><u>Waiting list<br/>(WL)</u><br>(N=35) | 25<br>scheduled<br>therapist<br>feedback<br>moments<br>during<br>online CBT | <u>Post</u><br>Online CBT ><br>Biblio. = WL<br><u>Follow-up</u><br>Online CBT =<br>Biblio. | <u>Online<br/>CBT</u><br>26/35<br>(74.3%)<br><u>Biblio.</u><br>17/35<br>(48.6%)                 | 3,6     |
| Jacobi<br>et al [75]<br><br>Germany                           | Sub-<br>threshold<br>ED<br>(N=29)<br><br>ED symp-<br>toms at<br>lower<br>level<br>(N=97)      | 126                                                                                                                                         | Universities<br>and<br>announce-<br>ments<br>(seminars,<br>advertise-<br>ments,<br>email),<br>fitness-<br>studios, | <b>RCT</b><br>Baseline,<br>2 months (post),<br>6-month follow-<br>up | <b>“Student Bodies+”<br/>(SB+)</b><br>8 sessions<br>8 weeks                  | <u>Intervention<br/>group (SB+)</u><br>(N=64)<br><u>Waiting list<br/>control (WLC)</u><br>(N=62)                      | Individual<br>weekly<br>feedback by<br>a group<br>moderator                 | SB+ > WLC                                                                                  |                                                                                                 | 3,6,7,8 |

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|--------------------------------------------|----------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------|----------------|-------------|
|                                            |                            |                 | private practices of physicians, pharmacies                                                                            |                                                          |                                                                |                                                                                           |                                                                                                                    |                            |                |             |
| <b>Motivation</b>                          |                            |                 |                                                                                                                        |                                                          |                                                                |                                                                                           |                                                                                                                    |                            |                |             |
| Hötzel et al [76]<br><br>Germany           | ED symptoms (N=212) (SEED) | 212             | Media announcements (radio, newspaper, magazines, social networks, or websites)                                        | <b>RCT</b><br>Baseline, 6 weeks (post)                   | <b>“ESS-KIMO“</b><br>Weekly online sessions for 45 min 6 weeks | <u>Intervention group (ESS-KIMO)</u> (N=103)<br><u>Waiting list control (WLC)</u> (N=109) | Asynchronous weekly feedback on website by therapist (individualized but standardized by predefined text elements) | ESS-KIMO > WLC (completer) |                | 2,3,5,6,7,8 |
| Leung et al [77]<br><br>China<br>Australia | ED (N=185) (SCOFF, EDE-Q5) | 185/101 (54.6%) | Leaflets, posters, advertisements in outpatient ED clinics, ED treatment units, university student newspaper, Internet | <b>Uncontrolled study</b><br>Baseline, 1 month, 3 months | <b>“SMART EATING”</b><br>11 worksheets                         |                                                                                           | Monthly emails by a therapist                                                                                      | Improved                   | 36/185 (19.5%) | 1,3,5,8     |
| <b>Carers/Parents</b>                      |                            |                 |                                                                                                                        |                                                          |                                                                |                                                                                           |                                                                                                                    |                            |                |             |

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| Binford Hopf et al [78]<br><br>USA                  | Parents of AN patients (N=13) | 13                                                                            | Parents who were involved in FBT at the University of Chicago | <b>Uncontrolled study</b><br>Baseline, before and after each chat session, 7 weeks (midstudy), 15 weeks (post) | <b>Internet-based Chat Support Groups</b><br>15 weekly online chat sessions for 90 min                      |                                                                                         | Licensed clinical psychologist                                                               | Improved        | 9/13 (69.2%)                                               | 1,2,3,6,8,9 |
| Grover et al [79]<br><br>United Kingdom             | Carers of AN patients (N=27)  | 27                                                                            | Clinical departments, volunteer database, advertisements      | <b>Uncontrolled study</b><br>Baseline, 9 weeks (post), 10-12-week follow-up                                    | <b>Web-based systemic CBT intervention</b><br>9 workbooks (encouraged 1 per week, but no formal time limit) |                                                                                         | Flexible support (trained CBT practitioner), up to 20 min per week (email or phone)          | Improved        | 22/27 (81.5%)                                              | 1,3,4,8,9   |
| Grover et al [80]<br><br>United Kingdom             | Carers of AN patients (N=64)  | 64/62 (96.9%)<br><u>OAQ</u><br>34/33 (97.1%)<br><u>BEAT</u><br>30/29 (96.7%)  | Online advertisements, carers' groups, clinical departments   | <b>RCT</b><br>Baseline, 4 months (post), 6-month follow-up                                                     | <b>"Overcoming anorexia online" (OAQ)</b><br>8 modules<br>4 months                                          | <u>OAQ</u> (N=34)<br><u>Control intervention (BEAT)</u> (N=30)                          | A psychologist and a psychotherapist with CBT skills (up to 20 min per week, email or phone) | OAQ > BEAT      | <u>OAQ</u><br>17/34 (50.0%)<br><u>BEAT</u><br>5/30 (16.6%) | 3,4         |
| Hoyle et al [81]<br><br>Australia<br>United Kingdom | Carers of AN patients (N=37)  | 37/33 (89.2%)<br><u>OAQ</u><br>18/17 (94.4%)<br><u>OAQ G</u><br>19/16 (84.2%) | Websites of consumer support associations, Facebook           | <b>RCT</b><br>Baseline, 7 weeks (post), 3-month follow-up                                                      | <b>"Overcoming anorexia online" (OAQ)</b><br>7 modules + 2 additional modules for carers<br>7 weeks         | <u>OAQ without guidance (OAQ-NoG)</u> (N=18)<br><u>OAQ with guidance (OAQ-G)</u> (N=19) | Email or telephone by a master level trainee psychologist once a week                        | OAQ-NoG = OAQ-G |                                                            | 3,4,6,7,9   |

|                                           |                                      |                                                                              |                                                                                   |                                                                           |                                                                                                                         |                                                                                                  |                                                                        |                                                                                                                     |                   |               |
|-------------------------------------------|--------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------|---------------|
| Bruning Brown et al [82]<br><br>USA       | Parents of sophomore students (N=69) | 69/58 (84.1%)<br><u>Intervention group</u><br>22/11 (50.0%)                  | Private, sectarian school                                                         | <b>RCT</b><br>Baseline, 2 months (post), 3-month follow-up                | <b>“Student Bodies” Parent Intervention</b><br>4 weeks                                                                  | <u>Intervention group</u> (N=22)<br><u>Controls</u> (N=47)                                       |                                                                        | Intervention group > Controls                                                                                       | 8/22 (36.4%)      | 2,3,4,6,8     |
| <b>Mobile/SMS Text Messaging</b>          |                                      |                                                                              |                                                                                   |                                                                           |                                                                                                                         |                                                                                                  |                                                                        |                                                                                                                     |                   |               |
| Shapiro et al [83]<br><br>USA             | BN (N=31) (DSM-IV)                   | 31/25 (80.6%)                                                                | From physician or from the university ED program, advertisements in the community | <b>Uncontrolled study</b><br>Baseline, 12 weeks (post), 12-week follow-up | <b>Text Messaging</b><br>Daily, 24 weeks + 12 Face-to-face (F2F) CBT sessions for 1,5 hours                             |                                                                                                  | F2F groups led by a clinical psychologist, automatic feedback messages | Improved                                                                                                            | 15/31 (48.4%)     | 1,3,5,8,9     |
| Robinson et al [84]<br><br>United Kingdom | BN or EDNOS (N=34) (DSM-IV)          | 34/21 (61.8%)                                                                | Patients who had outpatient or day patient treatment at a specialist ED service   | <b>Uncontrolled study</b><br>Baseline, 6 months (post)                    | <b>SMS-based intervention</b><br>Weekly 6 months                                                                        |                                                                                                  |                                                                        | Unchanged                                                                                                           | 9/34 (26.5%)      | 1,2,3,4,5,8,9 |
| Bauer et al [85]<br><br>Germany           | BN or EDNOS (N=165) (DSM-IV)         | 165/161 (97.6%)<br><u>SMS</u><br>82/78 (95.1%)<br><u>TAU</u><br>83/83 (100%) | Consecutive admissions to specialized inpatient care based on CBT                 | <b>RCT</b><br>Admission, discharge, 4 months (post), 4-month follow-up    | <b>Aftercare SMS-based intervention</b><br>Weekly symptom report via SMS 16 weeks                                       | <u>SMS-based maintenance intervention (SMS)</u> (N=82)<br><u>Treatment as usual (TAU)</u> (N=83) | Automatic, tailored feedback                                           | <u>Patients with outpatient treatment</u><br>SMS = TAU<br><u>Patients without outpatient treatment</u><br>SMS > TAU | <u>SMS</u><br>61% | 5,8           |
| Cardi et al [86]<br><br>United Kingdom    | AN (N=18)<br>BN (N=13) (DSM-IV)      | 31                                                                           | Institute of Psychiatry ED unit’s volunteer database, advertisements and          | <b>Uncontrolled study</b><br>Baseline, 3 weeks (post)                     | Mp4 player or iPod with 10 video clips (vodcasts) between 3 to 20 min each, workbook and daily monitoring forms 3 weeks |                                                                                                  | Three 30-45 min sessions provided by a PhD psychologist                | Improved                                                                                                            | 29/31 (93.5%)     | 1,2,3,5,8,9   |

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|  |  |  | posters in<br>local ED<br>services |  |  |  |  |  |  |  |
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<sup>a</sup> AN = Anorexia nervosa, BAT = Body Attitude Test, BEAT = Beating Eating Disorders, BED = Binge eating disorder, BIB-GSH = Conventional guided bibliotherapy, Biblio. = bibliotherapy, BITE = Bulimic Investigatory Test-Edinburgh, BMI = Body-Mass-Index, BN = Bulimia nervosa, BSQ = Body Shape Questionnaire, BULIT-R = Bulimia Test-Revised, CBT = Cognitive behavioral therapy, CD-ROM = Compact Disc Read Only Memory, DB = Dissonance-based, DSM = Diagnostic and Statistical Manual of Mental Disorders, DTC = Delayed treatment control, eBT = Email bulimia therapy, ED = Eating Disorder, EDE-Q = Eating Disorder Examination Questionnaire, EDNOS = Eating disorders not otherwise specified, FBT = Family-based treatment, F2F = Face-to-face, IBT = Internet-based therapy, iCBT = Internet-based cognitive behavioral therapy, INT-GSH = Internet-based guided self-help, IRC = Internet relay chat, MG = Minimal guidance, OAO = Overcoming Anorexia Online, OAO G = Overcoming Anorexia Online with Guidance, RCT = Randomized controlled trial, RP = Relapse prevention, SB-AN = Student Bodies for AN, SB+ = Student Bodies adapted for subthreshold ED, SCOFF = Sick Control One Fat Food, SDW = Self-directed writing, SEDs = Survey for Eating Disorders, SEED = Short Evaluation of Eating Disorders, SMS = Short Message Service, TAU = Treatment as usual, TG = Therapist guidance, TV-CBT = Telemedicine cognitive behavioral therapy, WCS = Weight Concerns Scale, WL = Waiting list, WLC = Waiting list control.

Codes for weaknesses following Newman and et al [121]: 1. Uncontrolled, 2. No follow-up, 3. Used only self-reports as outcome measure, 4. No information about additional psychological therapy, 5. No information about additional pharmacological treatment, 6. No adherence or quality checks on treatment or no information about it, 7. No information on therapist training, 8. Only used a waiting list or no treatment comparison, 9. Small sample ( $N < 50$ ).